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A New Complete Theory of Modern Physics and A Revamped Mathematical-Physics Compared to an Alchemical Newtonian Physics

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Abstract

Newton's equations of motion have been the cornerstone of physics for 350 years and are a useful alchemist's quick-fix to understand motion but by resting on a complex absolute they have prevented the development of theoretical modern physics over the last hundred years and so Newtonian physics has become an unchanging religion. Religions forbid change to the central doctrine and this has, I believe, impeded the growth of modern physics and the organisation upon which it is based. The only way to properly view the worth of Newtonian physics is relative to a developed theoretical modern physics which has now been done and provides the organisation that has been missing and that is sorely needed in the social sciences to produce social engineering that can define and reach society's long-term goals. The philosophy of science is currently based on measurement and this paper points out that relativity requires absolutes and theory as well.

Keywords: Newtonian physics; relativity; organisation; mathematical-physics; absolutes

Disclaimer: *the subject matter of this paper is new but must be classed as an opinion-piece and cannot be classified as scientific [not being based on past peer acceptance] and is theoretical [not based on the scientific method [that is measurement]] and its use may conflict with peer acceptance. Secondly, the paper is, in truth, scientific because (1) it is based on absolutes [as it must for comparisons to be made], and (2) on the simplest absolutes [unlike Newtonian physics that is based on the more complicated force equals mass times acceleration]. Thirdly, mistakes [contextual] may occur because I am a generalist, whereas a specialist is a specialist [conceptual] in a subject and would not be expected to make mistakes. This state of affairs is relativity and cannot be eliminated.*

Preface

For a number of years I had papers rejected by physics' journals and I came to the conclusion that physics, somewhat complicit with their long-term journals were acting as a closed-shop, protecting a religion-like view of Newtonian physics that seems to have grown over 350 years. Now I have published a number of papers using a bottom-up organisation style that contrasts with physics' [and Homo sapiens'] top-down thinking [that is fraught with speculation] that is needed to expand the alchemical basis of Newtonian physics that has prevented physics being able to expand into a useful theory of modern physics [that was apparently shut down 100 years ago]. I needed to derive a theory of modern physics to see why physics was unable to progress and remained restricted to measurement and 'peer review'. This has been done and I find

that Newton's laws are alchemical in being the mental equivalent of throwing everything into a pot to see what happens. 'Isaac Newton devoted considerably more of his writing to the study of alchemy (see [Isaac Newton's occult studies](#)) than he did to either optics or physics. (Wikipedia, Alchemy, Medieval Europe). The equations of motion turned out to be so simple and useful that it became a religion and physics became a club called Newtonian physics that no one dare challenge from fear of exclusion.

This paper suggests using Newtonian physics in everyday use because it works in spite of being alchemical and gives an acceptable result but cannot be relied on to do more than superficially explain motion. Unfortunately, its use has unnecessarily complicated physics and as an example, chemistry is a logical outgrowth from both alchemy and physics, but chemistry accepted organisation and has become a rigorous science unlike physics that uses organisation implicitly [but not explicitly] even though organisation is desperately needed for social engineering to manage society. Hence, having derived a possibly complete theoretical physics I can now point out the pitfalls of using Newtonian physics and examples are Einstein's postulating curved-space and not recognising the universe's use of local gravity and Newton's law of gravitation [that Newton admitted was an 'inspired guess'] that can easily be derived with this theory albeit recognising the mathematical pitfalls of ignoring orthogonality.

Newtonian physics has a cosy relationship with mathematics because, apparently, both are incomplete and the need for mathematical-physics is shown by the equation [showing equality] $F=ma$ where F is the force applied by *someone*, m is the mass, a is the resultant acceleration and the $=$ is an equality that is being unfortunately used as a relativity of a concept and context that are completely independent of each other. Notice the italics because our mind is communicating with the universe and force requires intent unlike energy. Not surprisingly, this points to the necessity of an extension of mathematical-physics into handling orthogonal relationships [that I call the mathematics of concept-context] that is the basis of the mind and neuroscience [1, 2, 5] that is based on the creation equation of a pre-universe [*concept plus context is nothing* [3, 4]] to our universe [*energy plus organisation is nothing*].

Newtonian Physics the First Law

Several centuries ago, the race was on to find a usable description of the motion of particles and Newton's laws won the day and became the cornerstone of Newtonian physics that seems to have produced a religion that cannot be questioned. Over this great amount of time, 350 years since its inception, physics apparently stopped progress because the description was alchemical and not based on absolutes which seems to have led to a simple universe being enshrined and described with unnecessary complexity by generations of physicists building on an unstable foundation. Hence a new simple description is offered that allows Newton's laws to be shown to be part of a logical physics derived from the bottom up using organisation.

The three laws are firstly, *a body remains at rest or in uniform motion unless acted upon by a force*, secondly $F=ma$ and thirdly, *action and reaction are equal and opposite*.

Thus, the first law says that *a body stays at rest or in uniform motion unless acted upon by a force* and I have wondered [as have others from Galileo] about all these particles wandering around unconnected with anything. The answer is that firstly, particles have matter waves [de Broglie waves] and secondly, speed is actually the architectural fabric behind the working of the universe [5] because there are only two states that are possible and they are firstly constant motion that is the stable state and secondly, acceleration that is its relativity. So, acceleration is the concept [zero to infinity] and the constant speed becomes the context because simplifying the number of particles to those that are reasonably permanent [according to this theory] defines their function:

Context:

plus [tier 1]: quarks up and down [*no speed*]
proton, electron [*less than light speed*]
neutrinos assorted [*near light speed*]
photon [*light speed*]
gravity [*speed of light locally, infinite speed non-locally*]

Plus [tier 2]: bosons, muons, taus, neutrons and other quarks etc. [*organisation changelings*]

The function of these particles is obviously different for each and speed is used to define this difference. The creation equation of our universe is *energy plus organisation is nothing* [see below], and all of the above particles are composed of energy and organisation held apart by the logic of an accelerating space which is produced [or required] by quantum gravity, below.

Given this array of speeds, is there anything particularly important about any of them? Each of the particles can travel in a speed band, particles from zero to the speed of light, but not quite to the speed of light because there is an asymptote and, I believe, that neutrinos travel in this [naturally] forbidden zone. The speed of light [and organisation] is fixed and an absolute because eliminating the relativity of the creation equation by dividing by the dimensions [energy, organisation, distance and time] *distance divided by time* is the speed for all energy and organisation. Notice that in local gravity, the gravitational effect is organisational [LIGO findings] whereas the [non-local] parabolic gravity is universe wide [provided by a mother universe based on *concept plus context is nothing* [3, 4], below.

The Second Law

The universe appears to be controlled by acceleration, because all of the velocity fields are full, and this suggests that gravity controls everything in the universe as an accounting, but as above, appearances can be deceptive because, I believe that the second law is incomplete as shown by the third law that action requires reaction and the equation $F=ma$ only considers half of the story in a universe based on relativity. So,

$F=ma$ has, to my mind, two probable derivations, firstly that the impulse [force multiplied by time] applied produces a change in momentum which is equivalent to the equation $F=ma$ or secondly, Galileo's experiments [rolling balls] showed that $F=mg$ where g is the acceleration due to our gravity and Newton generalised it to $F=ma$, which is at least in line with Francis Bacon's edict to measure. Unfortunately, in a universe that is based on relativity these derivations ignore that relativity but the universe [as an organisation] needs a mathematical-physics relativity as a way into its construction.

$F=ma$ is an alchemical statement because firstly, it gives an adequate result by creating a relativity between the observer and the universe and has nothing to do with the physical because force contains the intent of the measurer whereas energy contains no intent. This is an important distinction because interrogating the universe requires a relativity of a question held in the mind [1, 5] and the affordance of the reply is, I believe, the level of the emotional response in the brain [2] because any interaction must involve the creation equation. An example is the effect of decreasing the flow of particles in the double slit experiment, the double-slit experiment (and its variations) has become a classic for its clarity in expressing the central puzzles of quantum mechanics. Richard Feynman called it "a phenomenon which is impossible [...] to explain in any classical way, and which has in it the heart of quantum mechanics". In reality, it contains the only mystery [of quantum mechanics]. (Wikipedia, Double-slit experiment) [6] See below, that the question [the purpose of the experiment] changes as the flow changes which is the point of the experiment.

Secondly, $F=ma$ is an equation [an equality] if m is a fundamental particle and does not contain organisation explicitly, but this theory uses organisation explicitly in the creation equation [*energy plus organisation is nothing*] and *mass is energy plus organisation* where these two statements are [quantum mechanical] realities where energy and organisation are orthogonal and independent. Clearly, the energy and organisation are held apart by the acceleration in firstly, the quantum time absolute [*(energy plus organisation)/time*, [1, 5]] where, as time increases mass increases and secondly, that acceleration is required for the creation equation [*energy plus organisation is nothing*] to exist.

Thirdly, I am not saying that Newton's approach is wrong. It could have been based on Galileo's experiments [measuring] and a theory produced [as it possibly was] as I am advocating, but it is incomplete as this paper shows and hides [explicit] organisation that is crucial to social engineering in the humanities as well as understanding the physical. Fourthly, physics cannot be a science without absolutes that must be available on which to make comparisons and judgements. Measurement and peer review are poor substitutes for a complete theory, as I believe that this is and hope that it clears up the befuddlement that come across over the Big Bang, dark energy, dark matter etc. Fifthly, Einstein's equation $E=mc^2$ is often cited as the 'greatest' equation and bears closer inspection because mass could (a) be simplified

[*mass is energy plus organisation* in this theory] and (b) the orthogonality considered. Substituting for mass in Einstein's equation gives the orthogonality, as expected, *E plus O multiplied by $c^2/(c^2-1)$ is nothing*. This is extremely close to the creation equation, so, $E=mc^2$ is valid in both theories, see below.

Planck's Constant

'The constant was postulated by Max Planck in 1900 as a proportionality constant needed to explain experimental black-body radiation. Planck later referred to the constant as the "quantum of action". . . . $E=hf$. . . In 1923, Louis de Broglie generalized the Planck-Einstein relation by postulating that the Planck constant represents the proportionality between the momentum and the quantum wavelength of not just the photon, but the quantum wavelength of any particle. This was confirmed by experiments soon after-ward.' (Wikipedia, Planck constant) 'Following up on de Broglie's ideas, physicist Peter Debye made an offhand comment that if particles behaved as waves, they should satisfy some sort of wave equation. Inspired by Debye's remark, Erwin Schrodinger decided to find a proper three-dimensional wave equation for the electron. . . The de Broglie hypothesis and the existence of matter waves has been confirmed for other elementary particles, neutral atoms and even molecules have been shown to be wave-like.' (Wikipedia, Matter wave)

So, Schrodinger set up a field that contains matter and it could be said that particles coalesce out of the field and I have called this field organisation [7]. In physics, a unified field theory is a type of field theory that allows all fundamental and elementary particles to be written in terms of a single type of field. According to modern discoveries in physics, forces are not transmitted directly between interacting objects but instead are described and interpreted by intermediary entities called fields. Furthermore, according to quantum field theory, particles are themselves the quanta of fields. Unified field theory attempts to organize these fields into a single mathematical structure. For over a century, unified field theory has remained an open line of research.' (Wikipedia, Unified field theory) Schrodinger's universal wave is now considered to be a wave-packet and more confined but according to this theory organisation is built into the fabric of the universe along with energy through the creation equation.

From the experimental equation $E=hf$ where E is energy, h is Planck's constant and f is the frequency of light, above, and the identity that speed of a wave is c which is the product of wavelength times frequency and 'in 1923, Louis de Broglie generalized the Planck-Einstein relation by postulating that the Planck constant represents the proportionality between the momentum and the quantum wavelength of not just the photon, but the quantum wavelength of any particle. This was confirmed by experiments soon afterward. This holds throughout the quantum theory, including electrodynamics. The de Broglie wavelength of the particle is given by $\lambda = h/p$ where p denotes the linear momentum of a particle, such as a photon, or any other elementary particle.' (Wikipedia,

Planck constant) If $p=mc$ for a wave then $E=mc^2$ and using the orthogonal equation *mass is energy plus organisation* then *E plus O multiplied by $c^2/(c^2-1)$ is nothing*, where O is organisation. Thus, the Plank-Einstein equation is derivable from the creation equation and these terms describe the organisation behind physics that physics describes implicitly and needs to be used explicitly. This theory states that organisation is 50% of the Big Bang and from above *E plus O multiplied by $c^2/(c^2-1)$ is nothing* is extremely close to the creation equation.

Clearly, from the investigation of subatomic particles that have short lives and can be represented by only a handful [5] of permanent particles, there must be many organisations within the particles. The same equation $E=hf$ is used throughout the reality of wave-particle even though the universe recognises them [the wave and particle] as being independent [orthogonal]. Einstein [I believe] was given the Nobel prize for declaring them to be two forms of energy, when clearly, they are examples of the relativity upon which the universe is built and this orthogonality must be recognised by physics. Note that the reality [wave-particle] apparently has two different speeds [particle and wave] and two wave speeds [de Broglie and wave]

Heisenberg Uncertainty Principle

It is often said how well mathematics describes physics or the physical world is mathematical whereas this theory says that it appears true because both physics and mathematics are incomplete and that is because Newtonian physics uses energy only and mathematics considers numbers only. Building houses and universes requires orthogonal elements [bricks and non-bricks] so there is a complete mathematical-physics that requires elements to be orthogonal and to have different units. For example, you can't build a house out of numbers because they are different but similar whereas bricks and no-bricks are required to make a house that you can live in.

'The uncertainty principle is any of a variety of mathematical inequalities asserting a fundamental limit to the product of the accuracy of certain related pairs of measurements on a quantum system, such as position, x , and momentum. Such paired-variables are known as complementary variables or canonically conjugate variables. The quintessentially quantum mechanical uncertainty principle comes in many forms other than position-momentum. The energy-time relationship is widely used to relate quantum state lifetime to measured energy widths but its formal derivation is fraught with confusing issues about the nature of time.' (Wikipedia, Uncertainty principle) This lack of understanding is because physics considers space-time to be the dimensions on which our universe is built, however, in this theory, I consider the dimensions to be energy, organisation, distance and time where the dimensions are orthogonal and completely independent.

Clearly, to build a universe we need orthogonal [independent] building blocks and the requirement to measure both exactly is impossible for logical reasons, and

goes to the basis of relativity. A reality is two representations of the universe as 'real' on the one hand and as an organisation [8] on the other. Exactly as in the two-slit experiment we can view our surroundings as 'real' or organisational and an organisation can never be bounded as you can always add more members. Sum and difference [mathematical] happen in the physical whereas [mathematical] multiplication is relativity and division is removing relativity [see Archimedes and the bath tub]. For example, our view of the universe is quantum gravity [(energy plus organisation) divided by distance], quantum time [(energy plus organisation) divided by time] and a constant speed of light and organisation [distance divided by time]. [1, 5]

The Loose-Ends of Relativity

What is physics doing to itself by 'standing on the shoulders' of alchemical guesses? Truth must come from the very beginning [4] and be derivable everywhere and physics has placed itself in an impossible situation. As an example Einstein's law that $E=mc^2$ is the relationship that holds in the physical that requires mass [m] to be a fundamental unit [of mass], E energy and c is the speed of light. This is simple to use and alchemical because it works without us knowing why it works. So using universal relativity let us define organisation as the relativity so that *energy plus organisation is zero* and now that we can use algebra [if we are correct that organisation exists and that *mass is energy plus organisation*] we find that *E plus O multiplied by $c^2/(c^2-1)$ is nothing*. This shows that Einstein's equation is hiding another organisation and that organisation is shown by the requirement that for *energy plus organisation is zero* to exist then the space must be expanding [for mass to exist]. This simplifies the Big Bang as matter is created from nothing [not energy] and the space must be expanding [without dark energy] and this is in line with quantum time [above] where (energy plus organisation)/time requires an expanding space [energy plus organisation] as time passes. Needless to say, more truth is available when starting earlier [4] that gives a clearer and more simple description of the birth of the universe and even going further back to the pre-universe to answer dark matter and why universes, galaxies, planetary systems as well as atoms use parabolic gravity to stop the 'clumping' of matter and positive and negative charges sticking together.

Physics appears to be content to become a religion based on an alchemical set of laws that allows largely unfettered spectacular guesses, such as dark energy, dark matter, white holes etc. sponsored by the traditional top-down thinking of the animals and not a well-thought out scientific theory.

The Third Law

The third law [action and reaction are equal and opposite] is often described as the weight of the body and the reaction of the table holding it up. Fair enough, that is correct, but so is everything else in the universe that is derived from it

because it expresses the [one and only] basis for the universe, and that is relativity. A relativity in physics must have a physical presence [to be useful] and that must be a concept and context that are orthogonal [to be different], comprise nothing [to be simple] and exist in an accelerating space to keep them apart [to be something]. This is the reality of quantum mechanics where the orthogonals of wave and particle, energy and organisation etc. are kept separate [by speed in the particle array [5] and acceleration in the latter [6]] even though everything is composed of matter [energy and organisation being the creation equation] they can be counted as separate. This separation of nothing seems to be common and universal, as below, but it is matter composed of energy *and* organisation.

'Vacuum energy is an underlying background energy that exists in space throughout the entire universe. The vacuum energy is a special case of zero-point energy that relates to the quantum vacuum. The effects of vacuum energy can be experimentally observed in various phenomena such as spontaneous emission, the Casimir effect, and the Lamb shift, and are thought to influence the behavior of the Universe on cosmological scales. Using the upper limit of the cosmological constant, the vacuum energy of free space has been estimated to be 10⁻⁹ joules (10⁻² ergs), or ~5 Ge per cubic meter. However, in quantum electrodynamics, consistency with the principle of Lorentz covariance and with the magnitude of the Planck constant suggests a much larger value of 10¹¹³ joules per cubic meter. This huge discrepancy is known as the cosmological constant problem or, colloquially, the "vacuum catastrophe".' (Wikipedia, Vacuum energy) Concept and context could well be the fore-runners or components of vacuum energy [that physics accepts] and calls it 'energy' because physics has no other concept as it does not use organisation explicitly.

Concept and context are likely to form spontaneously [from nothing as *concept plus context is nothing*] and further form some sort of "vacuum energy" from *energy plus organisation is nothing* that form and are eliminated. Firstly, they must be eliminated because there is no acceleration to keep them apart and to form a Big Bang scenario and secondly, "vacuum energy" is all that you can call it if organisation is not recognised. It must be a feat to visualise energy forming on it's own but then the Big Bang is also visualised as energy when, in general, energy can only be visualised as the state of a particle. Clearly, the term "vacuum matter" should be used instead of "vacuum energy".

The third law is one dimensional and the particles are taken to bounce off each other so that momentum is conserved, but particles in our universe come in different types where billiard balls bounce off each other, sticky things stick together, massive particles attract other uncharged particles and charged particles are either attracted or repelled depending on their charges. Under gravitation, two masses attract and stick together whereas a positive [proton] and negative [electron] never do [as would be expected and presumably stay that way because the requisite neutrino is

missing]. There has to be a physical instruction to form two dimensional planetary systems or atoms and I have found just such an instruction in parabolic 'gravity' [3, 4] as the overall directive to form parabolic motion and it is the key to realising that the gravity of Newton and Einstein is local only and parabolic 'gravity' obviates the need for the dark matter postulate.

Parabolic 'gravity' is not an attraction, but a built-in restriction from a previous fractal that means that it is a restriction on the whole universe and acts instantaneously over the whole universe [as a restriction] which is necessary for the accounting to always be at the lowest level [for repeatability, principle of least action]. Parabolic 'gravity' [concept] has a context [parabolic effect] that is similar to the context afforded by the relativity of gravity. Note that quantum gravity (*E plus O*)/d [1, 5] is the 'gravity effect' of a body that attracts another body that becomes Newton's law of gravitation:

attraction is (*E1 plus O1*)/d multiplied by [relativity] (*E2 plus O2*)/d [as *E* and *O* are orthogonal]

and

attraction is (*E1 x E2*)/d (squared) plus (*O1 x O2*)/d (squared) [as *E* and *O* are orthogonal]

where *mass is E plus O*. Einstein added 'curved space' to double Newton's result that gave the correct answer but 'curved space' is organisational and represents the curved path of the planet. I believe that the gravitational attraction [Newton] and the curved path [Einstein] are the two halves of a [local] conservative system with a total gravity of zero. Similarly, every galaxy is local and the total is zero and secondly, the [planetary] radius moves so that acceleration equals the attraction [centripetal equals centrifugal force].

The atom is based on the same form with stronger forces supplied by the electric charges derived from the proton and electron. Notice that the electron and proton cannot combine because the necessary neutrino is so unresponsive and the parabolic 'gravity' forces them into orbit [versus stuck together] with the wave [orthogonality] attached to the electron forming standing waves around it's orbit. 'Each orbital in an atom can hold a maximum of two electrons, and these electrons must have opposite spins. This is a fundamental aspect of the electronic structure of atoms and plays a crucial role in determining the chemical behaviour of elements.' (TutorChase) These two electrons are considered to have different 'spin', but it seems more intuitive to think of them as standing waves containing one or two waves. In other words, physics defines 'spin' of the electrons instead of accepting the property of standing waves, which adds complexity, where the standing wave embraces the orbit and number in the orbit.

What is Quantum Mechanics?

See the following paper [7, 8]: A Complete Universal Field Theory For Our Universe Built From Nothing Using Only Organisation currently unpublished. Quantum mechanics

appears to be a concept that physics uses for the context of a field that it doesn't understand and that field is possibly the organisation that is not included in Newtonian physics. This theory assumes that organisation is everywhere because it is shown explicitly in the creation equation [*energy plus organisation is nothing*].

Mathematical Physics

'The Journal of Mathematical Physics defines the field as "the application of mathematics to problems in physics and the development of mathematical methods suitable for such applications and for the formulation of physical theories"' (Wikipedia, Mathematical physics) This definition is fraught and typifies the thinking of Homo sapiens as top-down and not based on any absolute. I hesitate to use the word nothing because nothing has a specific meaning and a better description of Homo sapiens' thinking is that it uses only half of a relativity and so, is fraught [if not meaningless] in a relativistic universe and further, the one and only thing that exists in our universe is relativity [that is built from nothing] and that our universe is built on relativity and nothing exists that is not relative to something else.

This relativity can be called entanglement and has been shown experimentally to be universal, 'quantum entanglement has been demonstrated experimentally with photons, electrons, top quarks and even small diamonds.' (Wikipedia, Quantum entanglement). If this describes contextual behaviour, the conceptual might be described by 'the experiment can be done with entities much larger than electrons and photons, although it becomes more difficult as size increases. The largest entities for which the double-slit experiment has been performed were molecules that each comprised 2000 atoms (whose total mass was 25,000 atomic mass units)'. (Wikipedia, Double-slit experiment) This suggests that concept and context are related [orthogonal] through the creation equation *concept plus context is nothing* leading to our universe *energy plus organisation is nothing*.

It seems that mathematics uses the operations: sum, subtract, multiplication and division in daily life but uses the latter two without realising their use in the physical which is not the same as mathematics uses them. In other words, mathematics is a discovery of Homo sapiens that has been derived as an offshoot of physical necessity. The dimensions of our universe must come from the creation equations *energy [E] plus organisation [O] is nothing* [being an offshoot of *concept plus context is nothing*], where energy and organisation can only exist in an accelerating space [restriction], so distance [d] and time [t] also become dimensions. Removing the relativity gives quantum gravity [(E and O)/d] and the attraction [of two masses] is the sum of the products $(E_1 \times E_2)/d(\text{squared}) + (O_1 \times O_2)/d(\text{squared})$. Notice that the first term is Newton's contribution and the second term is Einstein's contribution that gives the correct answer [Eddington's experiment] and that the product of two orthogonal quantities is the relativity that is nothing [being independent]. Thus, firstly, the net local gravity is zero relative

to the so-called dark matter 'gravity' [3] and secondly, the derivation above is simple but requires the use of orthogonality which is only found in an improved mathematical-physics.

Note firstly, that Einstein's work was based on Newtonian physics and his space-time theory may not be general, but local, with a total effect being zero and this leads to the total over the universe being zero [as it must be if *energy plus organisation is nothing*]. Secondly, that Newton's law of gravitation was an 'inspired guess and has never been derived in 350 years in spite of being the backbone of Newtonian physics and thirdly, this example shows that mathematics cannot adequately describe the physical. In other words, mathematics has been built on the equality of things [their number] whereas mathematical-physics uses a restriction that it must [in part] be based on the orthogonality of the constructive properties and nature of the building blocks of the universe.

Current mathematical-physics as used in Newtonian physics is essentially a one-to-one correspondence because both were products of the mind and use top-down organisation which gives an infinite number of possibilities of being wrong, for example dark energy and dark matter which is supposed to be around 20 times the visible matter. According to this theory, the dark energy that is supposedly accelerating the universe is that the equation of quantum time demands an accelerating space, as below, and the dark matter postulate is possibly explained by the parabolic 'gravity' that comes from an earlier pre-universe and fits the requirement that it affect particles and not photons. It seems that, like perpetual motion machines, energy must be seeping in from the pre-universe but not the huge amount of energy envisaged by physics because mass is simply created in an expanding space. This is a functional reason [speed of particle versus speed of light] because in this theory they have the same composition because *mass is energy plus organisation*.

Another example of removing relativity is quantum time [(E and O)/t] where at time near zero problems occur and as the expression is an absolute [constant] a vast mass is created [which means that a vast number of nothings must split into mass] called cosmic inflation. Note that the Big Bang says that energy is created [on it's own] which then requires the formation of matter and anti-matter to be explained away. The last division is d/t which must be a constant and it is the speed of light [for all energy and organisation]. These three absolutes [(E and O)/d, (E and O)/t and d/t] are the concepts [that we see] that build our universe together with the contexts of speed that define the players [particles, neutrinos, light [including organisation] and the infinite speed of parabolic 'gravity']. Mathematics is a product of the mind whereas mathematical-physics is how the physical works and the mind works on the principle of the original universe using what I call the mathematics of concept-context [2]. This mathematics [of concept-context] is also used in this universe and we call it literature because it is built on concepts [of the story and the people] and their interactions [context] and also in the lives of animals and ourselves in society [as social

science]. In fact, a society can be considered to be a manifestation of the creation equation of the energy [of people and production] and the organisation of society.

Notice that this requirement of a new mathematical-physics [that is fundamentally different to mathematics] and the further assumptions that would be necessary to be made to accommodate quantum mechanics on top of the alchemical basis of Newtonian physics probably shows why physics is reluctant to not change and that reluctance seems to have possibly emanated from the 1927 Solvay conference.

Heisenberg commented:

"Through the possibility of exchange between the representatives of different lines of research, this conference has contributed extraordinarily to the clarification of the physical foundations of the quantum theory. It forms, so to speak, the outward completion of the quantum theory." (Wikipedia, Solvay conference)

The phrase 'the outward completion of the quantum theory' seems strange when quantum mechanics has yielded so many benefits over the last 100 years but no theory of modern physics. Perhaps it was decided to retreat to the measurement form of physics as proposed by Francis Bacon, though there is evidence that the directive was shortened to delete theory. 'So in the process of discovering a scientific law we are moving from the particular to the general, a process known as induction; whereas in applying the law once we have got it we move from the general to the particular, a process known as deduction'. (*The Story of Philosophy*, Bryan Magee, p76) Perhaps the decision to postpone a theory of modern physics was prudent considering the alchemical nature of Newtonian physics and the lack of a usable mathematical physics and it seems that the above bringing of gravity together with quantum mechanics is what is desired in a complete field [7] built on organisation, that produces the particles, seems to have produced a serviceable theory of modern physics, which possibly is this theory [8].

Neuroscience and Governance

It might seem strange to see a section on neuroscience and governance when this paper is complaining of the lack of relativity in physics, but physics, as a concept, must have a context and that context affects every discipline because everything is connected to the physical even if it is just the fractal nature. Firstly, the complexity of physics, because it was not built on the simplest creation equation, affects it's truth because truth must start at the beginning [4] and secondly, physics lacks contextual relevance to other disciplines, in this case organisation [which is the basis of social science], and that is the reason for these diverse examples. Physics is about the physical and everything is based on the physical because the simple creation equation forms a fractal so that even the social sciences are based on the physical. The creation equation contains organisation explicitly whereas *physics uses organisation implicitly and is therefore incomplete!* So, as an example let's consider the

function of the brain as a concept [mind] and it's context [society].

The mind is very simple, firstly because it is based on relativity [as concepts] and secondly, uses a context that is the creation equation [*concept plus context is nothing*], and for that reason cannot be understood by Newtonian physics [which lacks formal organisation]. The concept of a mind is used universally as a contextual vote for the myriad cells that comprise the body because the cells are small [weak cell wall] and have precise functions. Thus consciousness could be defined by the ability [in the simplest way] to measure the conditions afforded by the world outside of the cell with the aim to react to it. Notice that the mind [concept] has a context that aligns with relativity itself and that is the setting of future goals that represents the relativity of the past, present and future and is built mathematically into Life [9] and the organisation of survival of the fittest is built on the fear of pain.

The basic problem with our societies today is lack of goals to aim for in the future and this entails getting enough exercise, eating the correct food, deselecting those with genetic and personality problems etc. with the aim of improving the members of society. For example, I have read that 60% of men suffer from baldness, whereas females do not have this problem. Presumably this problem is caused by sexual selection and could easily be overcome by selection [10]. Adam Smith [economics] suggested that what was good for the individual is good for the country [a fractal based on the simple creation equation] and this forms half of a positive feedback if the governance is constructive. Say what you will of Adolf Hitler, but he tried to improve the German people [until he started a war] and we need to do the same by using voluntary selection.

Whilst the fractal nature of the voter and cells supports the state and body, the reverse is often fraught when the politicians and leaders benefit themselves at the expense of the voters and the mind is swayed by propaganda, drugs, miss-information, marketing and all the other ways that it can be distracted from it's job of supporting the cells etc. As an example, physics was so relieved at finding a workable theory of motion that it has changed it into a religion that [apparently] cannot be changed in spite of the damage that is being done to society in general. This connection between the mind and society uses the creation equation [*energy plus organisation is nothing*] continually because the government and Churches use monumental buildings, uniforms, Bibles, anthems and hymns etc. that, when viewed or recognised are converted to emotional energy in the viewer that creates a real [emotional energy] sense of awe, belonging, oneness etc. 'What is surely the most striking feature of the brain is that all its higher processes – thinking, seeing, hearing, and so on – happen right at the surface, in the 4mm-thick sheath of the cerebral cortex.' (*The Body*, Bill Bryson, p 72)

The creation equation is the working of the mind because re-reading the memories [stored input from the senses] produces energy, the magnitudes of which can be compared

to make a decision. Affordances are the working of the creation equation [what the organisation affords us] that the mind uses to correlate the information flowing from the senses. 'The eyes send a hundred billion signals to the brain every second. But that's only part of the story. When you "see" something, only 10 per cent of the information comes from the optic nerve. . . . the biggest part of seeing isn't receiving visual images, it's making sense of them. (p 64) Notice that making sense is based on how you view the physical and social world and *the degree of intellect is determined by the correctness of the theory put forward by the senses and physicists are hampered by Newtonian physics and need this better interpretation.* The brain is crucial to our success in the world and 'what is surely most curious and extraordinary about our brain is how unnecessary it is. To survive on Earth, you don't need to be able to write music or engage in philosophy – you really only need to be able to out-think a quadruped'. (p 60) 'The human brain is estimated to hold something in the order of 200 exabytes of information, roughly equal to "the entire digital content of today's world", according to *Nature Neuroscience*.' (p58) Thus we have the capacity and this theory's software to greatly enhance our thinking without the laziness and risks of Artificial Intelligence.

Conclusion and Prediction

Newtonian physics is alchemical and simple yet complicated in being built on impulse or Galileo's experiments and one has to marvel that it has brought technology so far but, and it is a big but, the lack of organisation [as shown in this derivation] has produced a world that needs Noah's flood or the destruction of Sodom and Gomorrah to rid the world of overly entitled selfish people that the lack of a disciplined social engineering [from organisation] has produced. If there is another dark age, I think that it would be physics' fault because physics has hidden the organisation that lies behind the physical and society and reminds me of the saying "'for want of a nail" that is a proverb, having numerous variations over several centuries, reminding that seemingly unimportant acts or omissions can have grave and unforeseen consequences through a domino effect.' (Wikipedia, For want of a nail)

There is nothing wrong with Newtonian physics in the schoolroom and broader society but to turn it into a religion over 350 years is a sin against society for the want of organisation and 'Social Engineering: Using Social Science to Improve Ourselves and Society' [10]. This is the crisis point where a stupid Homo sapiens becomes a model citizen [Homo completus] with population controls, selection and the organisation to stop wars that even today are occurring.

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