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The Big Bang is Explained Using A Mathematical Physics Derived from the Mathematics of Concept-context that Describes Cosmic Inflation and the Acceleration of the Universe from Time Zero

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Article Info

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Abstract

Physics is supposed to help us understand the physical but Newtonian physics has been built on alchemy with measurement, guesses and generalisations using an inappropriate and incomplete mathematics that hides it's incompleteness, so, mathematical physics must be based on and derived from the mathematics of concept-context to describe the start of the universe, cosmic inflation and why the the universe appears to be accelerating. Using bottom-up organisation brings a simple explanation to the times and places that physics admits that it cannot reach and together with the present incomplete physics makes a complete science by adding the absolutes of quantum gravity and quantum time to explain gravity and universal expansion. Everything can be derived from the concept of relativity including a complete gravity, a believable growth of the universe and a definition of quantum mechanics that makes a mockery of dark energy, dark matter, matter-antimatter asymmetry etc. and shows a needed clarity of thought in science.

Keywords: Big Bang; cosmic inflation; acceleration of the universe; relativity; mathematical physics; mathematics of concept-context; quantum mechanics

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 it's 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

Everything must be relative to something else if we are to have a universe created from nothing, which simplifies the creation that firstly, introduces two mathematics, the first being the mathematics of the *similar* [what we call mathematics] and the mathematics of the dissimilar or orthogonal [*mathematics of concept-context*] which, being dissimilar can be used in building and is the basis of literature [*concept plus context is nothing*] which is the general statement of building stories, buildings, universes

etc. and specific for our universe is *energy plus organisation is nothing*. Also, it will be shown that our universe must expand continually and thus we require two more simple dimensions *time* and *distance*.

This paper upgrades a previous paper [Why Solving Cosmic Inflation Could Change Your Mind, [1]] and better explains the cross-linking of the entities that comprise our universe with the possibility of convincing physics that our society needs the explicit organisation [that is currently implicit in Newtonian physics] which it lacks that is firstly, blocking a theory of modern physics [and has done so for the last 100 years] and secondly, obscuring the formal organisation that creates social engineering that allows us to place social science [and the future of society] on the scientific basis of a competent social science. This is important in moving Homo sapiens to a new level [Homo completus] that is better able to manage this world and crucial to this endeavour is to increase the mental powers of Homo sapiens by using the creation equation [*concept plus context is nothing*] that actually forms the basis of neuroscience and thinking [2, 3]

The paper Can Affordances Save Civilisation?, *Mind & Society,*20(1), 107-110. doi:10.1007/s11299-020-00265-x has been redacted [and can be found on (darrylpenney.com)] because someone objected to it for the very same reasons that were stated in the first sentence [of the paper] and this shows sciences' animosity to change. The paper is important because it published the basis of quantum mechanics in neuroscience as an out-growth of organisation as will be shown below [and the disclaimer]. Physics has created a religious-like belief and a resistance to change in what is called Newtonian physics based on a misrepresentation of Francis Bacon's edit to measure.

Setting the Stage

Relativity requires considering the [evolved] design of our universe as absolutes, firstly, the speed of light [concept] around which everything [length, mass and time according to Einstein] changes to maintain the constant speed of light to any observer [as found by the Michelson-Morley experiment]. This is important because the factors used in the working are strictly determined by their speed [according to this theory, [4]].

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 derivation of this context, is based on the time taken to effect the organisational change of hundreds of types of unstable particles and this will be crucial to the derivation of the acceleration of the universe, below. Secondly, the context of the gravitation that emerges from the various factors listed in [5, 6] which is the parabolic gravity that originated in a previous fractal, the overall acceleration below, the local [together equal to zero] gravity of Newton and Einstein and acceleration-de-acceleration of bodies [together equal to zero] . Our universe appears to have evolved from a general form [based on *concept plus context is nothing*] from whence non-local [parabolic] gravity originated and applies to our universe that is derived from *energy plus organisation is nothing*.

If everything in the universe is relative to everything else the universe could be considered to be an organisation [by definition of an organisation], whereas history and the present day physics [and society in general] considers the earth and universe to be 'real' including the untold billions of stars etc. This can be reconciled by considering reality to be a space with the ends being orthogonal and an example is the wave-particle duality. The wave and particle are currently considered to be two forms of energy [by physics] whereas this theory considers them to be orthogonal [independent] and the way that the physical keeps them independent is to assign speed limits to them. This led to the context [above] that specified the particle by speed. If the time to reassemble themselves is ignored physics has to have [as it does] hundreds of particles in its array of subatomic particles instead of the simplification above.

Physics seems to prefer considering the complicated over the simple and that is possibly why it has come to such grief, for example, as above, physics considers that waves and particles are variants of energy and cannot see the organisation that must be behind the different roles for them to have to play the different parts that this theory unravels. The organisation needs to be able to distinguish wave and particle, which it does with speed, but physics determines which by the type of experiment [that it uses]. That is the importance of the two-slit experiment, that the universe [as an organisation] sees the experiment changing from measuring waves to particles [through the decreasing frequency of particles] and swaps to the orthogonality at the other end of the reality [of the wave-particle].

The universe was initially considered to be slowing it's expansion from the big Bang but now it appears to be expanding [from experimental observation] and to explain this [with top-down mystification] dark energy has been suggested and [physicists presumably agreed among themselves] that is the cause of the expansion [pushing everything apart]. The purpose of this paper is to suggest a simple means of expansion that is in addition and in line with the logical previous suggestion [1,2] that it was a logical necessity [restriction] and that restriction can now be removed.

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]. . . A simple do-it-at-home illustration of the quantum eraser phenomenon was given in an

article in *Scientific American*. If one sets polarizers before each slit with their axes orthogonal to each other, the interference pattern will be eliminated. The polarizers can be considered as introducing which-path information to each beam. Introducing a third polarizer in front of the detector with an axis of 45° relative to the other polarizers "erases" this information, allowing the interference pattern to reappear. This can also be accounted for by considering the light to be a classical wave, and also when using circular polarizers and single photons. Implementations of the polarizers using entangled photon pairs have no classical explanation.' (Wikipedia, Double-slit experiment)

'The wave-particle duality relation, also called the Englert–Greenberger–Yasin duality relation, or the Englert–Greenberger relation, relates the visibility, Vof interference fringes with the definiteness, or distinguishability, D of the photons' paths in quantum optics. Although it is treated as a single relation, it actually involves two separate relations, which mathematically look very similar. The predictability P which expresses the degree of probability with which path of the particle can be correctly guessed, and the distinguishability D which is the degree to which one can experimentally acquire information about the path of the particle, are measures of the particle information, while the visibility of the fringes V is a measure of the wave information. The relations shows that they are inversely related, as one goes up, the other goes down. Fringes are visible over a wide range of distinguishability.' (Wikipedia, wave-particle duality relation) 'Other atomic-scale entities, such as electrons, are found to exhibit the same behavior when fired towards a double slit. Additionally, the detection of individual discrete impacts is observed to be inherently probabilistic, which is inexplicable using classical mechanics. 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)

The Mathematics of Apples and Oranges

The universe is changing continually through it's relativity and as an organisation every part of the universe must be entangled [with every other part] and in our universe the entanglement is gravity in it's various forms and a simple example is the law of universal gravitation [which is a guess on physic's part] that is the mathematical multiplication of the quantum gravities, below. Notice that I say ' mathematical multiplication' because in our simple fractal [from a simple creation equation] universe we must expect multiple uses. Mathematics is based on similarity and we use multiplication and division to handle lot-quantities whereas they are [physically] concerned with enabling relativity and removing relativity. Notice that I have introduced the mathematics of concept-context [5] for the handling of orthogonality as used in building and neuroscience [2, 3] and in particular, I call this an entanglement, whereas physicists acknowledge the [quantum] entanglement of new pairs.

It is often said that you can't compare apples and oranges but you can using relativity and indeed, physics must use a mathematics that embraces concept and context if it not to risk being incomplete, which appears to have happened. So, we can create a relativity of two mathematics, firstly, using the number of each and the sameness of each to add [or otherwise] using the current mathematics, secondly, separate the differences [that are orthogonal: independent and entangled] and for each difference use the mathematics of concept-context to add to the sameness. All that we have done is create a reality with sameness at one end and difference at the other for each difference and that is adding apples and oranges. In other words, t*he idea of a reality bounded by two orthogonalities [in mathematical physics] is the same as we see in nature [our reality]* and this is a crucial point of similarity in a system that describes nature. It is not found in physics, which uses mathematics that is based on equality.

Compare this with local gravity, where we add the attraction of the sun and planet [Newton] with the [acceleration of the] curved path [Einstein] of the planet and the total is correct as found by Eddington and the total [local] gravity is the sum of the two gravities that are conceptual [Newton] and the contextual [Einstein] and the important part is that they are equal and opposite and the total effect is zero just as the effect of an acceleration is balanced by the deceleration [Newton's law of motion]. Notice that the only persistent effect [in our fractal is the parabolic gravity that is part of the previous fractal [5, 6]]. Just as the creation equation creates a universe from nothing, so, gravity is created in the same way. Newton's law of motion [that action and reaction are equal and opposite] means that the effect of internal accelerations are conserved universe-wide and this simplifies the accounting of gravity. Thus the parabolic gravity over the whole universe, is part of the fabric of the universe, has immediate effect [infinite speed] and the problem arises because physics is incomplete, physicists are floundering and coming up with dark energy, dark matter etc.

Given that the dimensions of energy and organisation are augmented by time and distance in an accelerating space [so that the creation equation continues to exist] the universe, that we see, can be pictured as having the relativity removed by mathematical division giving: *(energy plus organisation)/ distance, (energy plus organisation)/time and distance/time [2]*. The first is quantum gravity that is a context because distance is a context and is covered in [5, 6], the last is the speed of light and is an absolute and the one and only speed [in a vacuum] of a wave and presumably the maximum speed of organisation [and information] [4]. The middle term has been considered before [1] but it can now be extended to such an extent that it needs this paper because time is a concept and thus involves little 'wriggle-room' and possibly needs a new factor which is a context of time.

The Philosophy of Everything

I believe that philosophy is a science of reasoning [14] that is based on the absolutes of truth [5, 6] that must start at the beginning and the beginning of parabolic gravity came from another fractal [that could be a mother-fractal that has hived us off as a possibility]. The easy way out is to say that a God created us for His/Her amusement and this view has been in writing for thousands of years [Bible] but an anomaly keeps cropping-up with a concept called perpetual-motion machines that seem to have a fascination for some people and seem to need an external source of power to keep them going. The latest offering in the internet being a set of springs and a rotating flywheel. The same question is asked about our universe and the answer is that our universe is a possibility only if there is a mother universe pumping energy in.

We have found that Newton/Einstein gravity is equal and opposite [in the mathematics of concept-context], likewise 'action and reaction is equal and opposite' [Newton], the acceleration of the universe is minimal [below], everything comes from nothing except a feed-in that [like the perpetual motion machine] pumps in enough gravity [a logic] to create the impetus [or reason to form circular motion through the parabolic gravity [logic]] of atoms, planets, solar systems, galaxies and even the universe. This is a logical reason for the universe being created to house a population that has a reality of competent independent worthwhile citizens versus the orthogonality of a God that knows everything that you do and think and even requires your hopes and dreams [prayers]. What the Church has done the public servants are now doing [exercising the power of total control and no responsibility [of Kings etc.]] and increasing taxation to enforce more laws, more public servants and more restrictions whereas social science needs social engineering that requires the organisation that physics rejects to adequately manage a complex world.

Mathematical-physics

The remaining factor *(energy plus organisation)/time* is an absolute that we can use to view the functioning of the universe providing that we realise that it is not an equation [as we currently know it] but a member of the mathematics of concept-context [which currently has no formal rules] so I must take some liberties with the discussion. In some past papers I was interested in the subject of mathematical-physics as applied to physics and found that physics had no interest in discussing the appropriateness of using mathematics in physics. The reason is now clear that physicists are so misunderstanding of both physics and mathematics that they have made the alchemistic hodge-podge that is called Newtonian physics into a 'truth' that is Biblical in form and function [a complete universe of their own].

The structure of both mathematics and physics becomes clear because we can now compare them with the mathematics of concept-context as an absolute. This statement shows the structure of science in general is that a science only exists if it contains absolutes and firstly shows the in-adequateness of physics on relying on measurement alone and secondly, the incompleteness of mathematics in ignoring orthogonality and thirdly, we can now define mathematical-physics as a combination of mathematics and the physics of apples and oranges. Newton's law of universal gravitation has never been derived [that I know of and was acknowledged as an inspired guess by Newton], so from above the relativity [multiplication] of two masses [sameness] is the product of their quantum gravities [*(energy plus organisation)/separation*] and as energy and organisation are completely independent we must multiply the relevant parts [mass is energy plus organisation]: relativity [attraction] is the sum of (energy1 times energy2) divided by the separation (squared) plus the (organisation1 times organisation2] divided by the separation (squared) because mass is the sum of energy and organisation where energy and organisation are equal and opposite and while organisation might seem strange to have a gravity it is necessary as the universe can be viewed as an organisation [compared with 'real'] in it's reality. This is the correct answer according to Eddington's experiment and is effectively the combination of Newton's attraction and Einstein's curved path [not curved space-time] locally.

The Reality of Mathematical Physics

Looking at Pythagoras' theorem, as a truth and being complete [6], the relativity relationship between two points [and separation] is, as above, the mathematical multiplication is pointA/separation times pointB/separation which is similar to Newton's law of gravitation and adding a third point C, Pythagoras' theorem becomes the relativity of itself [point C (squared)] is equal to the sum of the [orthogonal] relativities squared [6]. We have a dilemma when I say that mass = energy plus organisation, whereas physics declares mass to be a fundamental property and Einstein found the E=mc (squared). The dilemma is resolved if we say that physics is wrong, Einstein is correct and that I am correct that an acceleration is creating mass from the building blocks of energy and organisation [4, 5] and that the acceleration effect is the subject of this paper below. Clearly Einstein's equation is correct [by experiment] but when compared to mass = energy plus organisation the speed of light (squared) appears for dimensions and relativity.

I find that the curating of Newtonian physics as a truth [when it is not, being based on measurement and generalisation] is disconcerting that someone outside of physics has to fix this omission so that the missing part [organisation] can be used in the social sciences. It appears that mathematics has also neglected relativity and is based on counting the sameness of things [numbers] whilst ignoring the difference of [of apples and oranges]. This leads to a reality of mathematical physics being composed [the sum] of mathematics [sameness at one end of reality] and a mathematics at the other end [differences] and is another example of relativity. Mathematics, I believe, was curated to be a product of the mind only. If there is a relativity [in the reality], there must be entanglement, so let's consider a possible candidate in Euler's equation that has mathematical beauty.

'Euler's identity is often cited as an example of deep mathematical beauty. Three of the basic arithmetic operations occur exactly once each: addition, multiplication, and exponentiation. The identity also links five fundamental mathematical constants:

- The number 0, the additive identity
- The number 1, the multiplicative identity
- The number pi (*pi* = 3.14159...), the fundamental circle constant
- The number *e* (*e* = 2.71828...), also known as Euler's number, which occurs widely in mathematical analysis
- The number *i*, the imaginary unit
- The equation is often given in the form of an expression set equal to zero, which is common practice in several areas of mathematics.
- Stanford University mathematics professor Keith Devlin has said, "like a Shakespearean sonnet that captures the very essence of love, or a painting that brings out the beauty of the human form that is far more than just skin deep, Euler's equation reaches down into the very depths of existence".' (Wikipedia, Euler's identity, mathematical beauty)

Our universe can be considered to be a reality with an organisation on one side and the [orthogonal] 'real' universe and world on the other [the 'real' world as conceived by the mind of Homo sapiens] the elements [of that consideration] are exact [as would be expected]. Consider the 'attempt to resolve Zeno's paradox by insisting that the sum of this infinite series 1/2+1/4+1/8+... is *equal* to 1.' (The Maths Book, Clifford A. Pickover, p 46) 'The number *e* ... is the limit value of the expression (1+1/*n*) raised to the *n*th power, when *n* increases indefinitely.' (p 166) 'The arctan function in trigonometry can be expressed by arctan(x)=x-x/3+x/5-x/7+.... Using the arctan series, the series for pi/4 is obtained by setting x=1.' (p 110)

So, Euler's equation is an exact relationship, in the limit, of a number of limits and that is presumably why it surfaces in traditional mathematics.

So, if we replace 1 with e to the power 0, we get a clearer picture:

(e to the power (i times pi) + e to the power 0) = 0

and . . . . it can be seen that there is an orthogonality between the powers of e . . . . Thus, this could represent a sphere [through pi], the complex sphere [being the inverse of the sphere, relativity] centred at 0 and/or the surface of a sphere in Euclidean space. . . . . there is only one mathematics that we have found from bottom-up, and that is the mathematics of concept/context of which traditional mathematics is a special case. Thus, the equation is not some artefact of some advanced civilisation, but, I believe, shows the inadequacy of the recognition of orthogonality in traditional mathematical physics.' [13] Thus Euler's equation could be considered to reside at either end of the reality that describes the universe as an organisation and/or a 'real' universe depending on the measurer and that either/or is the effect of relativity that lies behind so-called quantum mechanics.

The Measurer's Mind

The long-standing enigma posed by the Michelson-Morley experiment that the speed of light is constant to any measurer, no matter what their motion replaced the aether theory with Einstein's special theory. ['The concept of aether was used in several theories to explain several natural phenomena, such as the propagation of light and gravity.' (Wikipedia, Aether)] This meant that the physical was in communication with every person continually and the concept of a 'real' universe was enigmatic and an explanation had to wait for this theory that the universe could be an organisation where an organisation is a communication device and necessary to understand how the universe communicates with the mind.

This seems to be an appropriate place to say that I have never seen a definition of 'quantum mechanics' and the closest is possibly the quotation above, that 'the double-slit experiment (and its variations) has become a classic for its clarity in expressing the central puzzles of quantum mechanics'. This so-called 'clarity' is not clear at all and a definition could be that **quantum mechanics is the affordance offered by the organisational universe to the question in the observers' mind [or experiment] as to questioning the surrounding organisation and that affordance must be one of two appropriate orthogonals [the relativity] such as wave or particle.** Note that this definition is appropriate within this theory because firstly, it is based on a creation equation for the universe [2], secondly, the creation equation is a reality between wave [energy] and particle [organisation], thirdly, wave and particle are orthogonal and completely separate [but necessarily entangled within the reality], fourth, the mind of the measurer [or experiment] must be informed by an affordance that is an emotional energy [commensurate with the organisation measured and an expression of the creation equation], fifth, the question must align with the organisation to activate an answer, the magnitude of which is the appropriateness of the enquiry, and six, the universe is organisational because a 'real' universe can't answer questions.

Notice that this definition is very similar to that used by the mind because the mind uses the same principle of the creation equation. **The mind uses the affordance offered by the organisational universe [or re-reading stored input] to the question in the observers' mind [as to the organisation] and the measure of that affordance is the mathematical value of the energy [affordance] commensurate to the applicability of the organisation to the question used to make the decision of which is the better of two concepts [3].** To simplify this context of thinking, 'when we communicate we have to have a question in mind [requirement of an affordance, [2]] to get an answer, for example, in a shop we ask 'Do you sell soap?' and the answer is 'yes' or 'no' but the demeanour is bright if there are many varieties and hesitant if they have little soap [and this translates into emotional energy]. This relativity is the basis of the mind, where on asking a

question of the organisation of the environment the answer [as an emotional energy] is commensurate to the suitability of the organisation to the question.' [14]

Quantum Time

Quantum time [*(energy plus organisation)/time*] is an absolute, as above, where *energy plus organisation is nothing* [creation equation] and as an aid to appreciating the properties of this simple statement consider the logic of the half-truth [7] which simply states that if something is logically possible it may be used:

true, false, alternating true-false, our-other universe, chaos, restrictions, fractal-social engineering

where our-other universe is black holes etc., chaos is no sensible answer [magic], restrictions such as an accelerating particle that produces a form of gravity and must have a corresponding de-accelerating particle [Newton's law], fractal is the simplicity-similarity due to the creation equation, social engineering is the requirements of evolution whilst alternating true-false is what is possible that does not influence the outcome such as the changing of particles to waves if it occurs too fast to be accountable. Notice that in this section we will change the possibility of 'alternating true-false' [of the wave-particle in physics] to the two orthogonalities being held apart. The importance of the orthogonalities is that they create another dimension that allows matter to exist in the form *mass is energy plus organisation* where we know that *energy plus organisation is nothing* [creation equation]. Thus, **all the matter in the universe is nothing, which simplifies the concept of the billions of suns and galaxies** that physics finds so interesting. It can then be stated that the formation [of the stars] contains the information of our being here to ask the question of 'What are the stars doing?'. Thus, the universe in it's [apparent] vastness is nothing but information and possibilities, and that thought is truly shocking to those that think that the universe is 'real', as has been considered throughout history.

When energy [concept] and organisation [context] separate at time zero, from above, the reorganisation of the organisation of the particle take time [the basis of simplifying the subatomic-particles, [4]] and as the absolute is a constant, at near time zero, for the equation to balance a chain-reaction in the [comparatively] slowly forming (*energy plus organisation*) must occur. In other words, the equation is time sensitive and to maintain the balance a huge number of matter particles [*matter is energy plus organisation*] must appear [near time zero] and this could align with the central core of the Big Bang Theory [that a vast amount of energy was created [and energy is matter given that physics ignores organisation]]. Notice also that as time always increases the amount of matter (*energy plus organisation)* must increase and this is [or could be considered to be] **an acceleration of the space that is the universe that keeps the creation equation in existence**. Notice that this concept of acceleration is internal [versus the universe's space accelerating [1]], simple, small and constant.

The accelerating universe allows all of the new particles to continue to exist and notice that this version of the Big Bang produces firstly, particles [not just energy] and secondly, these particles are similar [to each other] and not some condensation of energy that would produce the particles and anti-particles as suggested by physics [baryon asymmetry]. Thirdly, the equation of the quantum time absolute requires the creation of additional matter as time passes and that simple acceleration ensures that the creation equation continues to exist. This is truly a satisfying simplification.

The Big Bang Theory According to Wikipedia

The above needs to be compared to the standard theory [as a relativity] for comparison and the following quotations from Wikipedia fits nicely with the above. 'Existing theories of physics cannot tell us about the moment of the Big Bang. Extrapolation of the expansion of the universe backwards in time using only general relativity yields a gravitational singularity with infinite density and temperature at a finite time in the past but the meaning of this extrapolation in the context of the Big Bang is unclear.' (Wikipedia, Big Bang) This clearly states the basic problem underlying physics that measurement and implicit [local] organisation is incomplete and needs an overall [non-local] theory to understand physics completely. Hopefully this paper might supply a framework to theoretical modern physics.

'The **Big Bang** is a physical theory that describes how the universe expanded from an initial state of high density and temperature. Various cosmological models based on the Big Bang concept explain a broad range of phenomena, including the abundance of light elements, the cosmic microwave background (CMB) radiation, and large-scale structure. The uniformity of the universe, known as the horizon and flatness problems, is explained through cosmic inflation: a phase of accelerated expansion during the earliest stages. A wide range of empirical evidence strongly favors the Big Bang event, which is now essentially universally accepted.' (Wikipedia, Big Bang) *Notice that this theory combines the Big Bang and Steady State theories for infinite growth.*

'Extrapolating this cosmic expansion backward in time using the known laws of physics, the models describe a extraordinarily hot and dense primordial universe. Physics lacks a widely accepted theory [that] can model the earliest conditions of the Big Bang.[As the universe expanded, it cooled sufficiently to allow the formation of subatomic particles, and later atoms.] These primordial elements—mostly hydrogen, with some helium and lithium then coalesced under the force of gravity aided by dark matter, forming early stars and galaxies. Measurements of the redshifts of supernovae indicate that the the expansion of the universe is accelerating, an observation attributed to a concept called dark energy.' (Wikipedia, Big Bang) *Notice from above that the postulation of dark energy [acceleration] and dark matter [parabolic gravity] are not necessary.*

'There remain aspects of the observed universe that are not yet adequately explained by the Big Bang models. These include the unequal abundances of matter and antimatter known as baryon asymmetry, the detailed nature of dark matter surrounding galaxies, and the origin of the dark energy. In the current universe, luminous matter, the stars, planets, and so on makes up less than 5% of the density. Dark matter accounts for 27% and dark energy the remaining 68%. At some point, an unknown reaction called baryogenesis violated the conservation of baryon number, leading to a very small excess of quarks and leptons over antiquarks and antileptons—of the order of one part in 30 million. This resulted in the predominance of matter over antimatter in the present universe.' (Wikipedia, Big Bang) *Again not needed as it is simpler to have one type of organisation.*

'After about 10?11 seconds, the picture becomes less speculative, since particle energies drop to values that can be attained in particle accelerators. At about 10?6 seconds, quarks and gluons combined to form baryons such as protons and neutrons. The small excess of quarks over antiquarks led to a small excess of baryons over antibaryons. The temperature was no longer high enough to create either new proton–antiproton or neutron–antineutron pairs. A mass annihilation immediately followed, leaving just one in 108 of the original matter particles and none of their antiparticles. A similar process happened at about 1 second for electrons and positrons. After these annihilations, the remaining protons, neutrons and electrons were no longer moving relativistically and the energy density of the universe was dominated by photons (with a minor contribution from neutrinos).' (Wikipedia, Big Bang) *Notice that this theory describes quarks as organisational [can't be separated] and gluons are not needed.*

'The four possible types of matter are known as cold dark matter (CDM), warm dark matter, hot dark matter, and baryonic matter. The best measurements available, from the Wilkinson Microwave Anisotropy Probe (WMAP), show that the data is well-fit by a Lamda-CDM model in which dark matter is assumed to be cold. This CDM is estimated to make up about 23% of the matter/energy of the universe, while baryonic matter makes up about 4.6%. Dark energy in its simplest formulation is modeled by a cosmological constant term in Einstein field equations of general relativity, but its composition and mechanism are unknown. More generally, the details of its equation of state and relationship with the Standard Model of particle physics continue to be investigated both through observation and theory. All of this cosmic evolution after the inflationary epoch can be rigorously described and modeled by the lambda-CDM model of cosmology, which uses the independent frameworks of quantum mechanics and general relativity. There are no easily testable models that would describe the situation prior to approximately 10?15 seconds. Understanding this earliest of eras in the history of the universe is one of the greatest unsolved problems in physics.' (Wikipedia, Big Bang) *Notice that dark matter is not needed in this theory nor a cosmological constant term.*

What a lovely story of the creation built on top-down guesses, dark energy, dark matter and no explanation of why it happened! This theory merely says that it is possible, that it could be produced from nothing and has to have a Big Bang start [of mass that is composed of energy and organisation] and the Steady State maintenance [of the acceleration] provided that energy and organisation are orthogonal to form the building blocks and kept apart by acceleration. *Notice that the pre-universe provides parabolic gravity [5] to start the circular motion and prevent contact of the positive and negative particles.* This logic of circular motion [parabolic gravity] is the only reason that atoms form and so create Life.

Conclusion and Prediction

Considering that 'understanding this earliest of eras in the history of the universe is one of the greatest unsolved problems in physics' together with dark matter, dark energy, baryon asymmetry etc. along with the inability to derive a theoretical modern physics etc. in the last 100 years shows that physics is in deep trouble and because organisation is not explicit, physics is causing havoc in society and jeopardising the future of mankind. These are strong words, but unfortunately true and Homo sapiens needs to increase it's intellect [3], introduce social engineering [9, 10, 11], understand itself [8] and embrace an organisational universe [12] and include it into physics along with using the mathematics of concept-context and building mathematical physics as above.

It is easy to see why physics accepts Newtonian physics as an alchemical simple solution with mathematic measurement, but surely the time has come to accept the offer of formal organisation [the creation equation], relativity, bottom-up organisation and a newly formatted mathematical physics that eliminates the enigmas and propagandist musings [8] associated with cosmology. Surely it is time to stop wasting resources with evermore intricate and expensive experiments seeking final understanding that can be done theoretically and to stop titillating the media with top-down fantastical musings.

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