

ORIGIN OF UNIVERSE, THEORY OF EVERYTHING AND THE ORIGIN OF CONSCIOUSNESS: CONCEPTS OF EXISTENCE ARE INHERENTLY PHILOSOPHICALLY, SCIENTIFICALLY AND METAPHYSICALLY INCOMPLETE. HAWKING'S VIEWS ON GODEL'S INCOMPLETENESS.

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Summary

The series of publications/articles/books by the author (vixra Peerally archives and books), of which this article is the sixth paper about the Theory of Everything, highlight that our current scientific culture could soon have dramatic new openings, that will trigger science towards a far more productive potential than is generally believed. Hawking in his various writings harboured both optimism and pessimism about the Theory of Everything and the future of fundamental physics and mathematics and a particularly thoughtful one is "*Gödel and the end of physics*". He was generally right for there is nothing in science and philosophy that will ever be proved to be final. The reason is that existence and the universe arose from precursors that cannot be seen to imply finality in terms of their physics and philosophy. In any case Hawking's feeling is that Gödel's theorem indicates that there is incompleteness in any concept, for example, Hawking said: "*One can have a well-defined position, or a well-defined velocity, but not both.*"..."*This would seem to make complete determinism impossible. If one can't accurately define both the positions, and the velocities, of particles at one time, how can one predict what they will be in the future.*"

In philosophy, as well as in mathematics, one can understand whether there is or not such a thing as finality. The fact that not only Gödel, a pure mathematician, but an eminent physicist like Hawking agrees that incompleteness could be an eternal rule of existence carries a lot of weight. In fact, one can also theorise that existence cannot be proved to be complete, not even death, mainly because of the mysteriously metaphysical consciousness. There is nothing in intellectual knowledge that can be regarded

as a final truth, as the author's Theory of Everything will also show. The domain of fundamental cosmology has been in crisis in the last several decades, and that is where the Theory of Everything can represent a significant opening for decades, centuries and millennia of philosophy and science to come. The author's publications, in addition, are his two posters about consciousness (Tucson Consciousness Conferences, 2016, 2017) and two books that discuss the Theory of Everything and consciousness.

The objective of the author's publications is to demonstrate that the facets of the universe are capable of being encapsulated within a single philosophical and physical concept, the Ultimate Theory of Everything that agrees with Hawking's later view that natural phenomena and existence fundamentally imply the property of incompleteness. This author's final concept of existence is coming at the right time, in view of the wide range of mixed feelings on the scientific dreams of a final theory of existence, and about the nature and meaning of what our realities are. As the eminent physicist Steven Weinberg said, in his *Dreams of a Final Theory*, a really wonderful book to read: *"We are on the track of something universal-something that governs physical phenomena throughout the universe-something that we call the laws of nature. We do not want to discover a theory that is capable of describing all imaginable kinds of force among the particles of nature. Rather, we hope for a theory that rigidly will allow us to describe only those forces-gravitational, electroweak, and strong-that actually as it happens do exist. This kind of rigidity in our physical theories is part of what we recognise as beauty."..... "As Abdus Salam has said, it is not particles or forces with which nature is sparing, but principles. The important thing is to have a set of simple and economical principles that explain why the particles are what they are. It is disturbing that we do not yet have a complete theory of the sort we want. But, when we do, it will not matter very much how many kinds of particle or force it describes, as long as it does so beautifully, as an inevitable consequence of simple principles."* Weinberg then remarked *"The creation of new physical principles is agony and apparently cannot be taught."* In fact, the Ultimate Theory of Everything will squarely meet Weinberg's prescription, and will also widely opine about a large range of aspects of the universe and existence. Weinberg's remark does, however, illustrate to what extent intellectual pursuits can be challenging, and Einstein did go through precisely this kind of agony, for he

unsuccessfully devoted the last three decades of his life to the search of a theory that would unify gravitation and the electromagnetic force, a search which has not been pursued by other physicists. The truth is that the solution of the mystery of gravitation in relation to the electromagnetic force is very elusive and requires the Theory of Everything to elucidate. However, this ultimate concept has been, in the scientific literature, well regarded as a near impossible ambition of science. Seeing where we are in cosmology, there is an urgency for it, for it could have a universal impact on how we view the universe and our existence, as realistically as possible.

Preamble

The fact we have been unable to work out a theory of everything in the last decades of scientific and philosophical studies, more than a century after the Golden Age of Physics, is ample support of the view that finding the theory of everything is a tough proposition. Even though it was not forthcoming, it does look like that without the Theory of Everything, the impact of practically every aspect of life would feel this lacuna, which potentially shows of this critical universal concept can produce creation views of nature which appear either as science fiction or just lacking in credibility. To some groups of physicists, despite the thoroughly organised and extraordinary nature of our universe, it does not strike them that we are a supernatural creation and, in fact, some of them go to the extreme of spending decades on natural theories of the origin of existence, based on mathematical concepts, instead of attempting to figure out how to integrate the ultimate philosophy and physics of existence. They cannot be blamed, though. This is simply because the creation process, for reasons that the Theory of Everything will make clear, could not, even slightly, have made the universe other than what the physics of everything integrated with the philosophy of everything tells us. The final concept of existence and the basic nature of existence must correspond, and such a concept does exist. Kepler and Whewell soundly predicted that humans do have some of the mind of the Supernatural Power that created the universe, and that we would in due course discover how and why the universe was conceived, as far as possible. The Supernatural Creator of the universe must be perfectly and infinitely positive and constructive, such that any material creation has necessarily to be so inferior to the Supernatural Power, that it cannot be totally evil free. Infinite power goes with absolute perfection. This remark is a

profoundly balanced remark, and can be, nevertheless, very elusive even to some very great minds. The nature of our realities is both down to earth and partly supernatural, ultimately, and so it certainly cannot be perfect, thus signifying we are a combination of positive and negative influences. No concepts of the natural origin of universes, in most cases based on mathematical models, could ever figure out, scientifically, how our extraordinarily complex universe popped into existence, 13.8 billion years ago, under any kind of philosophical and scientific circumstances. That is totally ruled out. In other words, the actual manner our universe was created imperatively requires a theory that combines the philosophy of existence with the physics of existence, as the author's two books explain in great details. These two books need to be carefully read and understood to see the marvels in the concept of everything and the creation of the universe.

In fact, the world's intellectual achievements, so far, are just a minute fraction of the real possibilities. We are still at the dawn of the world's *modern* intellectual and scientific history, which is only some twelve decades old. This span is very thin, knowing that there are numerous centuries, millennia and millions of years of existence ahead of us. Sadly, despite our tender intellectual age, two world wars have decimated a lot of our potential for acquiring the best scientific knowledge, and for promoting international understanding. Already some politicians are insinuating WW3 as a possibility, which I also believe, that would be the most stupid thing that can befall the world and humanity, a simple logic that some world leaders do not seem to be capable of realising, for there is huge leeway to adopting alternative pathways towards guiding the world's destiny as productively and soundly as possible. The great tragedy is that WW3 can break out through an acute misjudgement of events and facts, or to some miscalculation. The alternative is to focus on the philosophical and scientific openings awaiting studies and research that can productively take us into increasingly refined prosperity in the decades, centuries and millennia, but there is no real sign that the intellectual and political world are sensitive to these possibilities and is seriously preparing to lay the appropriate foundations. We need more effective formal and informal local and international mechanisms based on efficient cooperation and a far more intelligent comprehension of the meaning of what humanity is. In fact, the Theory of Everything that the author's book tries to explain, is as well a

philosophy that soundly pushes the notion of what is humanity and what are her real terms of reference. What we seem to have is a life, nationally and internationally, that abounds with unhealthy choices, often based on poor judgements and philosophies of existence. Therefore, we might in fact be only getting ready for widespread philosophical calamity for humans and the environment, a point well brought out in Charles Taylor's *"A Secular Age"*.

As a result, for example, there are significant parallel unproductive and expensive projects, in science and technology, often tied to national prestige or out of fear of competing countries making sensitive discoveries before others, or to unsound scientific and intellectual judgement at times. Often these capital expenditures could be far more productive projects, if realised under well coordinated international cooperation. It is particularly intellectually oppressive to see scientific news in popular mass media that are based on sensational science, rather than priority science. or even not on sound science, really. Dark matter and dark energy comprising 96% of the mass of the universe is a project that requires to be given some very serious thoughts. It is agreed that the belief of the occurrence of dark matter/dark energy was originally based on some good scientific studies about the motion of galaxies and neutron stars. The contradiction is the fact these two forms of peculiar physics, strangely, cancel every conclusion you can argue about whatever happens in their individual effects. This observation deserves scrutiny. One causes expansion and the other contraction in the physics of the universe. If you try to explain whether, say if dark matter exists for instance on planet Earth, you would intuitively be finding what is the mass of Earth, and what gravitational force it exerts, based on Newton's law of gravity. If your calculations tell you that the force of gravity that is obtained does correspond to the mass of Earth, which scientifically could be based on the probable number of atoms, protons and electrons etc., then you would say that adding another say 30% more mass derived from the hypothetical dark matter, should have given a significantly greater force of gravity, and you would know that dark matter does not exist, in a way of reasoning. However, you cannot, for you will be told there is also dark energy, postulated to exist concurrently with the theory of dark matter, but which says that dark energy creates antigravitation! So, it appears like Planet Earth will never know the truth behind dark matter and dark energy, for the likelihood a minute bit of

evidence collected in insignificant experimentation with the behaviour of particles, whether neutrinos or electrons, could never be evidence of dark matter or dark energy.

However, the Theory of Everything will have important issues to highlight about the nature of gravitation, and how that could help to understand the manner mass, gravity and kinetic and potential energy work, and whether dark stuff really exists. On the other hand, concepts like many-worlds interpretation of existence, megaverse and parallel universes are instances of sensational science, about which we hear from time to time in the world news. We are worthy of much better than this, but it is largely the lack of international understanding, and the occurrence of poor political and administrative management issues that aggravate the retarded advance of the best possible science and technology, something that pushes unproductive projects and science towards what is a tragedy to thousands of young minds who could be academically better informed and engaged, in their intellectual environment. The author is certain his TOE will generate that kind of positive fallout for our young scientists. We can create a much brighter destiny for the future generations of budding cosmologists and physicists/mathematicians. Science at the level of major collider facilities should be far better managed, like was the case when the Superconducting Super Collider was being screened by the Congress and S & T administrators of major scientific projects in the US. In retrospect they were right in not going forward with the SSS, for the cost and return would never have justified it. The diffusion of fake news by media about the world facing the danger of being annihilated by accidentally generated black holes in collider experiments are the kind of false stories that should not occur, as already we have cosmological projects that convey farfetched ideas about our existence. It is precisely due to the lack of understanding of our philosophy of existence why Charles Taylor had to write a 700 pages monumental book, *"A Secular Age"* that I believe scientists and intellectuals must attempt to see, at least the gist of his message. Basically, Charles Taylor's book and mine on the Theory of Everything, Origin of Universe and the Origin of Consciousness are fundamentally *not at all* about God and religions, but about *"Understanding"* existence and the universe, in other words about the philosophy and science of existence.

The basic nature of existence tells us that humans, since they were evolving from the ape-like ancestors, had been instinctively inspired by the depth, extent and mystery of the infinity when we peer at the sky and heavens. Astronauts have related their philosophical experiences created by their intimacy with the wonders of the cosmos. There is something that the infinity of the universe tries to communicate to us, and that is one of the signals we will understand from the Theory of Everything. The first ever theory of everything in known human history can indicate the fact that searching for the ultimate explanation of existence is an instinctive *spiritual* urge of humanity, that has always and will always exist, and is a natural phenomenon of existence, one that binds science with philosophy, in ways that tell us what the universe and existence are ultimately. The universe, being a supernatural reality, must be as it is, material and philosophical, so that we have within us science and philosophies of existence, for that is what the whole universe, and what metaphysics are all about. Metaphysics must be the higher science that underpins quantum physics. Spirituality is a necessary reality of life, and although is often associated with religion, which some scientists find repugnant, unfortunately, for in fact it is deeply associated with knowing what science is ultimately. It is impossible to arrive at the final theory of the universe without bringing in philosophical and spiritual arguments, as well. Understanding the profound nature of the atoms and laws of nature is also a religious thing, that takes us towards the finality of science.

Introduction

This article is the last one of the author's Theory of Everything series on vixra's remarkable open access facility, in anticipation of the publication of the author's second book. With several articles and two books on the theme of the Theory of Everything, after spending nearly ten years on this research, it seems to him like a distant dream materialising at long last. The time is fast approaching to publish his second book entitled "*Origin of Universe, Theory of Everything and the Origin of Consciousness*". Confronting a task of this magnitude and nature, it is a mystery that so very early in our modern age of science, we can produce the first version of the real Ultimate Theory of Everything about our existence and the universe. It is puzzling because our world is merely at the doorstep of the first modern phase of our cosmology, which anyone can realise by reviewing the current cosmology knowledge and

the large array of unsolved mysteries about the universe and our realities of existence, that tells us how much more there remains to solve. We however realise there have been laudable successes by some dedicated scientists and physicists, since the beginning of last century. Describing the scientific and metaphysical origin of the universe and of consciousness is of enormous intellectual, philosophical and scientific interest to the whole world, both for the intellectuals and the public consumption. That is why the author will have two versions of his book on the ultimate theory of everything: One for the scientific and philosophical community and one for the young people and the public minds. The latter version is entitled: *“A Concise History of the Universe: Origin of Universe, Theory of Everything and Origin of Consciousness.”*

The Ultimate Theory of Everything is a comprehensive and dynamic concept, that is not a static concept for, in principle, it can tell us, progressively, with improvements, practically everything about the universe and existence. If it did not come now, the current confused state of cosmology would simply attain a condition of scientific despair. This fact makes me wonder how other habitable planets have fared in this respect. My own assessment of the Theory of Everything and of its potential to guide humanity in the centuries, millennia and millions of years of the future, is that it is priceless. This is because the Theory of Everything has crucial values not only for science, but for practically every aspect of existence, and for theology, politics, sociology, economics, and enormously for the philosophy of the meaning of existence. Such a development is particularly pertinent for our world in the current era, where after WW1 and WW2, there are people talking of WW3, which if it ever does break out, will take humanity back by at least a century, for it could very much be the most Machiavellian and retrogressive military enterprise in human existence. In contrast, the Ultimate Theory of Everything potentially prepares humans to cope with the science, philosophy and technology of the coming millennia, and particularly with understanding the extraordinary meaning of human existence, that teaches us that no satanic influence should drag us into human sufferings, the like experienced during WW1 and WW2, and into futile nonsensical narratives we are constantly inundated with every evening, not due directly to news media, of course. As Charles Taylor frantically tells humanity, the problems of our times are issues of properly understanding the meaning of existence in the world that can be seen too much as a materialist

entity, meaning not fundamentally due to preoccupation with God and religions.

Basically, the whole cosmos is made up predominantly of empty space, in which there are billions of billions of macrocosmic entities, of which Earth is one lonely lovely planet in the Milky Way, which is one of the hundreds of billions of galaxies in the universe. Humans were conceived to be knowledgeable as far as possible, and to explore opportunities, philosophically and scientifically, something that started maturing, intellectually, as from the beginning of the last century, after a long history of productive philosophical thoughts. We have, behind us, at least some six billion years of cosmic evolution of our solar system, in which Planet Earth was created some 4.5 billion years ago. With the concurrence of hundreds of favourable natural factors on Earth, the cosmic plan, in a manner of thinking, expected microbes to be produced a billion years later, and humans in another 3.5 billion years. The whole supernatural cosmic destiny was a perfect one, within a mix of determinism and indeterminism in evolution and entropy, for nature works that way, as you will better appreciate when you have read the author's Theory of Everything, the Origin of the Universe and the Origin of Consciousness theories, early next year. The 13.8 billion years since the beginning of the Big Bang appears to be eternal, in our human comprehension, but it is possibly timeless in the supernatural context. Our universe basically is made up of matter, space-time, and living and non-living things, and above all, of consciousness. Humans are the major actors in the universe, a daunting prospect and responsibility. We have been given a time scale, the appropriate environment and enough intelligence, to chart our existence across a long gestation period, based largely on knowledge. Our mind associated with a mysterious timeless consciousness should hopefully ensure we use all that we have as diligently as possible. On Earth, our era is at the at a very early stage of intellectual, scientific and philosophical evolution, not the proper recipe to really comprehensively understand existence and the meaning of the universe. The Anthropic Principle is one of the marvels of incomprehension, and another one is Intelligent Design.

Our history as pre-humans started some six million years back, and we must be very lucky that we, so early now, have the ultimate philosophical and scientific charter of existence, in the first version of the Ultimate Theory of

Everything. It is an accomplishment that is so elusive and complex that it is quite unbelievable we have the first version of it, thanks to the manner we have been evolving intellectually. It consists of the fusion of The Philosophy of Everything with the Physics of Everything, that can tell us what the ultimate meaning of existence is, to supplement, philosophically and scientifically, what a long history of theology and of philosophical thoughts, since several millennia, has been impressing on us. However, theology interprets existence, based on some remarkable historical events, that included prophets and religions that have profound philosophical values, but science should be normally based on sound concepts and philosophy, supported by intellectual justification and verification. Let us not forget for a second that, before existence, there was nothing at all, except a Supernatural Existence and a metaphysics, about which we will know more under the author's Origin of Universe, Theory of Everything and The Origin of Consciousness accounts in his coming second book. Human engagement in reflections about existence, since the days of Plato, Anaxagoras and Aristotle, has generated lots of theories depicting what our realities are, but there can be only one correct final theory of what we are fundamentally, and that is the ultimate Theory of Everything, which is undoubtedly part of the supernatural destiny of humans, regarding what precisely our existence and destiny are meant to be like. We must put up with the fact that in our human destiny and reality, a lot of what is existence has some elements of real politics as well as some intellectual politics, but that should not apply normally to genuine scientific and philosophical efforts and concepts. That is also the reason why religions, in contrast to science, have been looked upon with suspicion, even with distance, due to a philosophical misunderstanding. Both science and philosophy had their historical difficulties to develop into the intellectual domain they are in modern times. That was due to their being infiltrated with superstition and false ideas of realities, and it has been an arduous intellectual struggle to bring them to their current modern status. The suspicion about supernatural power in relation to human realities versus religion is bound to persist and endure decades if not centuries, for the scientific concepts of existence are bound to win over the minds and hearts of the whole of humanity sooner or later.

The universe has impressed and inspired the ancestors of humans since millions of years. The Hominids apes that evolved into humans must have also felt the power of the sky and heavens in their day to day lives, and as Carl Sagan so vividly says: *"We are all made up of star stuff"*. In this regard, one of the earliest discoverers of quantum theory, Max Planck interestingly remarked: *"I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that we regard as existing, postulates consciousness."* We live in a universe that was created to be a conscious universe, capable of creating a sense of huge wonder about the marvels of existence, that carries a message that humans would be capable of realising subconsciously her unique qualities and see existence as something a lot more inspiring than just a physical entity. So, in this context, we can assert that cosmology is the primary source of inspiration and knowledge in the universe, and everything else is derived from it, and the first secondary knowledge that humans engaged in, next to watching and studying the sky and heavens, was philosophy, a natural outcome, most probably of supernatural inspiration. It goes without saying that the subject of mathematics lies within philosophy, and serves to make scientific sense of philosophy. There has always existed a direct connection between the universe and the human preoccupation with the mysteries of existence, seen in the manner the heavens, sky and cosmological phenomena, impact upon our consciousness. We are in fact among the earliest knowledgeable modern humans to feel how the potential of science and philosophy can progressively release the cosmological knowledge hidden within the confines of the universe, and perhaps, and surely in the beyond, as well. The Golden Age of Physics of the beginning of the 20th century, with some of the brightest intellectual minds of modern history, was the critical event, which broke away from the traditional scientific trend of Newton and his contemporaries. The Theory of Everything will be another scientific revolution of our current modern history of science. It will help us to understand a lot of the history of the universe and of existence and will in fact even suggest what existed before the Big Bang and even earlier, and the data we will present will fundamentally show how the Biblical view we have been created in God's image is more than exact. There would be no way of elucidating our ultimate origin without bringing in the supernatural and the philosophical aspects of our realities.

The origin of the universe tells us who and what we are

When Einstein wondered whether God had any choice on how to handle the origin of the universe, he was certain there was none. Einstein's time was a great scientific era, the era of the strengthening of Newton's laws of motion and of gravitation, the beginning of the discovery of relativity and of quantum mechanics by a group of admirable physicists of the early 20th century, with names, in addition to Einstein, like Planck, Bohr, Heisenberg, Schrodinger, Dirac, Pauli, de Broglie and their numerous collateral colleagues, who produced major and dramatic new physics of our existence, in human history. Their impact dramatically started to unveil the secrets of existence, for what was discovered was not only science, but a combination of science and philosophy, in which knowledge of the atom and electron, wave function and of quantum mechanics, brought extraordinary new facets of existence into the forefront of intellectual and philosophical debates, that have reached dimensions that are becoming more and more puzzling, accompanied by a whole array of ideas, mostly philosophical, about the nature of existence. While Einstein was satisfied that the universe is comprehensible, science became progressively impregnated with a lot of new concepts, some of them deeply scientific and remarkable, but at times very imaginary, but it has not been too difficult for most scientists to see the difference between real and imaginary science, in a rapidly developing intellectual culture, in which there was a significant impact of subjective philosophical views, often in contradiction with the kind of science promoted by Planck, Einstein, Bohr and their colleagues of the great age of physics. That subsequent part of our history occurred in the decades following the Golden Age of Physics, say as from the forties of last century, until the present time. Our current time had seemed far from ideal for the real Theory of Everything to emerge, but ironically this is what is happening, and it is quite a miracle that we are beginning to see through the opacity of the meaning of existence.

When Einstein concluded that the universe and laws of physics were comprehensible, he was of course thinking, among other facts, about how his science of relativity impacted on Newton's absolute space and time, that led subsequently to the realisation that nothing could possibly move faster than the speed of light, and to the concept of general relativity. Einstein's mass/energy equation amply demonstrated that energy was explainable

based on mass, and that these two forms of realities were interconvertible, so that you cannot produce either of them from nothingness. His general relativity made sensational findings about gravitation as a pseudo-force and perhaps as another manifestation of the electromagnetic force. In those days there was a huge controversy about the nature of the wave function of the electron, which does not seem to have been resolved until the present time, and in fact this controversy has produced philosophies of existence which Einstein would have found difficult to assimilate, as he had an aversion to *"spooky-action at a distance"*, a philosophy that persists to this day in some ideas, meaning to him there was no magic in science. Interestingly the Ultimate Theory of Everything will throw light on quantum mechanics, and its interpretations where both Einstein and Bohr were quite right. According to Einstein the universe had to be comprehensible. It is also true that the birth of quantum mechanics was of such a nature, that Einstein's predisposition and intelligence could not adapt to some of its parameters. He was never entirely wrong, meaning there must be features of quantum mechanics which are not incontestable natural phenomena.

So, Sagan's Star Stuff, in the history of cosmology, was initially some natural unspecialised physical realities, like dusts, which evolved to produce our current realities. A Theory of Everything is a master concept that tells how the star stuff originated, to then produce the physical realities and laws of nature. Within this creation strategy there was the interplay of structures and evolutionary trends, all preconceived, not continuously conceived, to progress along pathways that would combine determinism and indeterminism. From what we are saying, we mean that the universe is a macroreality made up from micro-realities and laws of nature that function in a perfectly coordinated fashion, due to the manner creation occurred. Every reality in our laws of nature is part of a whole, which would always act as a well-coordinated whole, irrespective of how their micro-realities indeterministically play their roles. The forces of nature, the key particles and bosons, atoms and molecules could not have been different from what they are, if the plan was to have a universe like ours. In the evolution of biomolecules, DNA and protein molecules until whole living things are formed, there is some indeterminism playing a crucial role, and whatever species we have, whether of plants or animals including humans, could have been slightly different, without this making a fundamental

difference to the world or universe. That is the fundamental meaning of determinism/indeterminism acting in concert. In most cases, in biological evolution, the survival of the fittest plays an important role in ensuring the fittest survives to carry over the continuation of each species, as far as possible, within a context of the struggle for existence. Every bit of the evolution of our realities was preplanned in the creation concept and there has never existed any continuous intelligent design as believed in some modern ideas. There has always been a certain element of probability in everything that evolves naturally, for that was how the universe was supernaturally conceived.

In terms of the origin and nature of the universe, there was a creation masterplan, which had the information that would lead to a universe as ours is, its development, laws of nature, and entropy, and universes in general would all be the same, and evolve more or else along similar destinies. It is nearly impossible to imagine there could have been other supernatural ways of creating universes, meant to have humans and existence like ours. God's methods involved, Einstein said, empirical integration. In other words, it was fundamental knowledge, a metaphysics that led to the universe, not requiring any previous experimental trials, and so forth, or statistics as the Anthropic Principle believes in their natural concepts of creation. Every major aspect of our existence, right from the Big Bang event, must evolve along the path of progressive perfection, and this also occurs in the scientific, social, historical, philosophical and spiritual aspects of existence, everywhere in our universe, and in other universes, where they exist. There is need to realise that without a supernatural science, usually called metaphysics, nothing can exist for instance in any thought experiment, because there had to be a cause and a causal stimulus, or motion, that set the whole thing in action, and it had to be all supernatural, for how otherwise can an extraordinary universe with its science, philosophy and evolutionary processes exist and proceed in such orderly ways. It goes without saying that an orderly creation system must have been deliberately conceived before the Big Bang to pave the way for the origin of the universe, in a manner that would establish our laws of nature and existence.

Evolution of philosophy and human societies, in relation to cosmology and existence

The Ultimate concept of the universe concerns everything that exists, but to intellectually describe its gist, requires going critically into some instances of what our human existence is. There are two major domains of knowledge which intimately relate to our existence: Science and philosophy, meaning significantly "*physics*" and "*philosophy*". In fact, the final Theory of Everything has been defined by the author as the integration of the Philosophy of Everything with the Physics of Everything. Within physics, we have mainly Einstein's relativity and quantum theory. Within philosophy, we have the phenomenon of consciousness and the meaning of existence. Everything that exists concerns physics and consciousness, or physics and philosophy. For an enormously complicated entity like the universe to exist, there must have existed supernatural implications, which at our human level, must be so elusive to assimilate that we can only see how natural evolution or entropy and consciousness, operate to ensure the continuation of existence. These aspects of existence are related to the laws of thermodynamics, relativity and to quantum theory. Evolution means philosophy, actions and motion in micro and macro realities, while quantum theory concerns philosophy and actions in the micro-realities. Integrating relativity and quantum theory is regarded as very challenging, but it is not in fact, and the Theory of Everything will discuss this issue as well. The manner societies evolve across the millennia and millions of years, ultimately originated from the manner the universe and humanity had their origin.

There was, to start with, the need of having some kind energy and forces to create matter, followed by the evolution of millions of entities towards greater and greater perfection, of adaptation, into new and more and more perfect entities, until we eventually had pre-humans and later humans. Quantum theory and relativity, particles, forces acted in concert with philosophy, that means, in other words, basically physics and philosophy created situations and exigencies, towards achieving greater and greater perfection. All that could only happen due to the nature of the forces, and of matter, in conjunction with consciousness. The association of matter, forces and consciousness is so extraordinary that nothing, as Planck said, means anything without consciousness, an issue that we will explain in greater details in the coming book. The two books of the author on the Theory of Everything and Consciousness, totally nearly 1000 pages, are just the beginning of a new

world scientific and philosophical culture, that will engage humanity for millennia of her future existence, that will carve a new destiny for all on this planet. Perhaps this story, on Earth, is occurring/has occurred/will occur in human societies on every planet in the universe. The amount of research and documentation that cosmology will engender in the coming centuries and millennia, is of the kind that cannot be estimated. The physics of existence will, for instance, involve an awful lot of new physics, including mathematical physics, about fundamental aspects of the universe, with the possibility of lots of new discoveries, about the nature of consciousness. This is not difficult to rationalise, for our current scientific know-how is too elementary for any meaningful impacts on really understanding the ultimate nature of the universe and of existence.

Shamanism: The first human Theory of Everything

Within the evolutionary perfection of the physical realities of matter, molecules, matter, living things and so on, consciousness and matter had always acted in intimate interconnectedness, for nothing exists without consciousness. There is something very strange about it all, like the whole universe being a living entity, like everything is associated to a consciousness, but that is how it is, for everything not only appears but is, in fact, ultimately part of the supernatural. No wonder the science of consciousness is looking more and more into consciousness as a reality that could be connected to the existence of a soul as an after-death phenomenon. I realise how difficult it is to fully comprehend everything that is said here, but the Theory of Everything will throw light on these complexities, as far as possible. It is for these reasons that the author feels it is perhaps useful to illustrate one isolated aspect, of the phenomenon of evolution with regard to humans, by arbitrarily selecting the practice of Shamanism, by our ancestors of 17-18 millennia back in history, as just one of thousands of examples how consciousness, and the influence of a supernatural power looms over existence, and which also illustrates the complex nature of the universe and of existence, which many take lightly, when in fact they are all examples containing hidden messages about our ultimate nature.

Existence in the universe has since antiquity been sending signals that life is not just matter, not materialistic, for there is also the consciousness/spiritual,

a significant indicator that existence is associated with supernatural values, not in the sense of religions and their teachings, but in terms of the fundamental nature of the universe and of existence. In other words, the universe being of supernatural origin, does have ways of exteriorising aspects of spiritual existence in the universe, and these expressions must have existed since human societies arose from the humanoids, to become societies that became instinctively conscious of their supernatural origin, and that is where the meaning of consciousness has messages to tell us about the ultimate nature of the universe, as the Theory of Everything will show. That is the reason we wish to cover this aspect of existence in one arbitrarily selected human society that lived some 17 millennia back in history, as given below.

Cosmological and spiritual sensation in cultural and spiritual practices, among ancient human societies, has been the subject of interesting researches by Michael Rappenglueck in his Caves des Lascaux studies, published in several articles, as from 1995, and in other studies by various workers. The paintwork of the Lascaux, has been declared authentic by relevant French authorities and has been the subject of significant works published in reputed journals and in the Heritage Sites of Astronomy and Archaeoastronomy in the context of the UNESCO World Heritage Convention. The Lascaux Caves paintings are impressive and thoroughly integrated descriptions of cosmogony, cosmology, astronomy, spirituality and religions, in a fascinating depiction of socially, religiously and culturally integrated systems. Dr. Rappenglueck has produced palaeolithic evidence of cosmography and archaic knowledge of astronomy and geometry, 16,500 or more years old. The research project soundly employed multidisciplinary methods including mathematics, mythology, religions, and astronomy. The geometry of the Lascaux pictures shows evidence of astronomy associated with biological and mythical aspects of existence. The pictures in the Lascaux caves are constellations, the Milky Way, moon, sun and power beings, that spiritual leaders, known as Shamans, of those times, used to monitor the spiritual activities of these caves, whose main objectives focused on interacting with the heavens and spirits. Shamanism is the culture of practicing altered states of consciousness with the objective of perceiving and interacting with the heavens of spiritual existence and transcendental forces to remove adverse elements from the souls of humans, thus restoring to humans their individual mental balance

and wholeness. To do this, Shamanism sought influences that aimed to solve health and other problems in their communities. Shamanic literature is academically well established and it even has a peer-reviewed journal. The descriptions which follow have been abstracted from the impressive article by Dr. Michael Rappenglueck, published in *Artepreistorica.com*, 2009, entitled *“Palaeolithic Shamanistic Cosmography: How is the famous rock picture in the shaft of the Lascaux Grotto to be decoded?”*

The Shamans were not only spiritual healers, but experts in cosmography. Shamans believed that phenomena between heavens and earth are interacting with one another. Based on astronomical data, Shamans will decide on the right time to tell myths while conducting rites and ceremonies. They looked for vigorous and weak places in the cosmos and used a rock art kind of astronomy. Shamans and hierarchical chiefs organized their societies around defined astronomical features, and their hierarchical divisions and goals followed complex class systems structured in accordance with cosmic events. Shamanism had its foundation on a kinship with celestial creatures, which are divine lords of the beings. The Shamans thus felt they could arrange communication between the heavens and their world. So they thought they were empowered to establish cosmic harmony, to survive in difficult situations and to heal. The Paleolithic Shamans entered the caves, regarded as special locations in space-time, to travel to spheres in space-time and to learn something about cosmic powers.

The animals in the artwork of the Lascaux caves were spiritual helpers that assisted Shamans to master their journey through the worlds. Since the caves were space-time, rocked creatures were the spiritual agents of these space-times. The natural domes of caves represent the arching shapes of the curves of the heavens. The heavenly figures are pictures on the ceilings and the earth ones are those on the ground. The underground spaces copy the structures of the cosmos, including the openings, passages, chambers and the watercourses in the caves. The rock figures, objects, plants, animals, and sometimes human beings frequently refer to astronomical elements, which show places and motions in spheres and time. There are directions, the cosmic axis, solstices, and equinoxes, the course of the moon and sun, the stars and constellations, the Milky Way and other phenomena like eclipses, meteor showers or comets.

The caves permitted entrances into the alternate worlds and represent communicating channels between our worlds and the cosmic world. They are power caves with creatures in the different levels of the cosmos, all assembled in these power caves. Shamans visit these power caves to learn about the powers and structures of nature, and to derive strength from the ancestral heavenly spirits. Therefore, these caves represent all spatiotemporal attributes of the universe. The navel of the world was here in these caves, symbolized as stalagmite and stalactite pillars. The caves were spiritual symbols of birth, death and rebirth, of the uterus of the cosmos. It was the place of cosmogony of the genesis of living beings. The caves had in their depth the creative inner forces of nature, the elements of earth, air, water and fire. The caves were the birthplace of all of existence, the first celestial bodies of objects, plants and animals, created in the darkness of the birth caves. They emerge as prototype totems and cave out of the rocks, on to the surface through an opening in the rocks, and make creatures.

The Shamans entered the caves to travel to different spheres of space and to learn about it. The journey took the Shamans to all directions in the cosmos. There, in the caves, at the centre of the cosmos, Shamans received their initiation from their peers in secret knowledge, which helped them to understand the mysteries of the world, and to heal human sufferings. The different structures of the caves enabled them to travel into different levels of reality in the universe. Thus, the Lascaux caves were an ancient worldview, which combined cosmogony, cosmology, biology, psychology and religion, into the spiritual integration of the forces behind existence. One can see in this description of ancient spiritual life, traces of modern Abrahamic religions, in the sense there has to exist supernatural dimensions in human existence, and that is not so difficult to accept, when we view the enormous skill and knowledge behind the origin of the universe, bearing in mind that a human normally cannot even create a grain of sand. The philosophy of Shamanism, 17 millennia back in human history, was a philosophical attainment, that can be argued to correspond to the discovery of quantum mechanics, in our scientific era. It is another case of history repeating itself, philosophically, and is one of the strange manifestations of how deeply mysterious, complex and puzzling the creation mechanism was.

The nature of reality

This is a subject that was particularly discussed by some eminent physicists, including Feynman and Hawking, due to the strange nature of quantum mechanics particularly in relation to the strange behaviour of the wave function in experiments. It is believed, since several decades, that there is no "*picture or theory-independent concept of reality*", based on the observations of the behaviour of some elementary particles in particular, and on scientific concepts like the Uncertainty Principle and the many worlds interpretations, the reality of the wavefunction of the photons and of electrons, in particular. In other words the belief that what is obvious might not be the truth, which means that the world, under quantum mechanics, tells us that realism, for instance an apple is an apple, might not, in quantum theory, be a correct philosophy of the universal application to laws of nature. The nature of what is reality is brought out in interesting ways in the Theory of Everything that will indicate how metaphysics substantially preordained our physics and philosophy.

Consciousness

First impression is foremost and this saying is particularly apt in relation to an observation about consciousness made by Planck, in the early days of the discovery of quantum theory, in his famous remark that everything that exists in our universe postulates consciousness. Chalmers unequivocally supported this idea by emphasising that no theory of the origin of the universe makes sense without implying the origin of consciousness within its foundation. Schrodinger remarked that everything in existence cannot be understood without associating the property of consciousness with it. Consciousness is a universal "*awareness*" property resulting from the interplay of physical realities, which exist in every independent physical entity and natural phenomena that resulted from the act of creation of the universe, 13.8 billion years back at the start of our existence. Every bit of existence appears linked to a universal reality of consciousness, and Einstein's question as to whether the Mind behind the universe had any choice to produce our universe is likely to be that there was none.

One needs to reflect about what could be the major obstacle facing the credibility of mathematical theories of the origin of universes, parallel universes, String Theories, M Theory, megaverse and of the Anthropic Principle and of ideas like inflationary universes, infinite universes, and

related topics. The answer could be their total incapacity, in particular, to think about or explain the origin and importance of consciousness in any discussion of the origin of universes. Consciousness seems to be inextricable from the very nature of existence, of everything from the Big Bang to atoms, evolution and the nature of humans. Undoubtedly the explanation of consciousness should obviously unavoidably lie at the forefront of any discussion of the origin of universe/s. Consciousness is the universal spirit of the universe and of existence, whose nature and implications extends far beyond the infinity of our universe.

The scientific expression of consciousness can eventually become more explicit in terms of scientific research, but the explanation of what is consciousness might amount to the interplay of the totality of whatever components of consciousness we have in physical and biological realities, and far beyond, in space and time. All processes in a particle, a living cell, a macro entity and in all phenomena, are finally a consequence of the realities of consciousness. If the precursors of the cosmic primordial stuff, which created our universe, had consciousness in them, that will make both consciousness and our universe metaphysical realities. Therefore, the phenomenon of consciousness might never be emulated, in robotics, except perhaps only in a limited practical and superficial manner, for science might never be capable, even in the distant future, of mastering the laws of metaphysics. The author's Theory of Everything will, in all likelihood, catalyse new progress of physics, cosmology, new concepts in relation to the Standard Model, particles and forces, space and space-time, consciousness, and the beginning of appreciation of the nature of metaphysics, and how it underpins quantum theory. There will also be renewed interest of how mathematics and physics can lead to a comprehension of what is the ultimate nature of dimensions in space-time and how these are related to consciousness, and to the ultimate nature of forces and particles. In addition we need to also understand the deepest nature of gravitation, without which it is not possible to understand the universe. Einstein's notion of gravity has not really evolved in the least manner since his early 20th century concepts, and his cosmological constant, which he miserably found was his greatest blunder, is now being raised to levels of appreciation which surely would have shocked him enormously. It is fitting to end this penultimate chapter with this quote of Copernicus: *"To know that we know what we know, and to know that we do not know what*

we do not know, that is true knowledge."

Conclusion

The final theory of our universe will have significant scientific surprises and nobody, including the author of this book can predict the full outcome of such a scientific/philosophical discovery, mainly because the Final Concept of the Universe finds the universe and existence to have a supernatural origin. In such circumstances, we have not only a material existence, but one that is fused with spirituality, the reason why we have been referring to ancient and modern spiritual beliefs, that indicate these have not fundamentally changed from the instinctive view we have been created from supernatural involvement, where the laws of science seem to be underpinned by supernatural science, that is metaphysics. The implications are deeply scientific philosophical and metaphysical, for we cannot fully understand or explain basic aspects of existence like consciousness, the ultimate nature of matter, spacetime, and even of forces and particles, and the phenomenon of gravitation.

Charles Taylor's "*A Secular Age*", has aptly expressed Taylor's feelings about the contemporary outlook of modern existence, and the cultural confusion about what is modernity, and the meaning of belief. It is totally maddening to see small and big nations piling up weapons of mass destruction, at a time when humanity has not well understood even the fundamental nature of humanity, in an extraordinary universe of supernatural origin. We will see, if we survive large scale world wars, that humanity on Earth, in the universe, is being wasteful of the potential for development we have been blessed with by our mental consciousness and by metaphysics, which we are merely starting to understand. There is an urgency to unveil the potential to comprehend the secrets of the world, the universe and the beyond, especially the metaphysics which underpins quantum theory. The future of science, cosmology and philosophy lies in understanding consciousness and the physics of existence. Bergson's timeless consciousness was a deep insight by the Nobel Laureate philosopher, in his studies on freewill and consciousness, and the Theory of Everything in the author's book will elaborate further about this way of seeing consciousness and existence, for as Hawking sees, the Incompleteness of Godel points to incompleteness in natural concepts of realities, and even in Theories of Everything and in the

interpretation of existence.

However, in the context of the potential of applying human consciousness in robotics technology, this is clearly out of proportion with what is scientifically realistic. There is absolutely no possibility for a society of robots to emulate human, for the power of consciousness is not only natural but is supernatural and does not allow this kind of metaphysics, like for instance having the feeling of "*I am*". What is also implied here is that robots would never be capable of organic/inorganic evolution, therefore of being capable of developing some semblance of human nature. The author's Theory of Everything describes the Origin of Consciousness, in a concept that goes in parallel with the origin of the universe and of all its laws of nature. The Theory of Everything is one whole package of scientific principles that is capable of explaining practically every scientific and philosophical aspect of existence, depending on our contemporary scientific knowhow. The concept of the origin of consciousness, interestingly, extends much further the gist of the author's two poster submissions at the 2016 and 2017 Tucson Consciousness Conferences of Arizona.

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