

PARTS OF THE BHAGAVAD GITA COMPRESSED INTO A FEW THOUSAND WORDS FAMILIAR TO 21ST CENTURY SCIENTISTS

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Abstract –

This is an essay I entered in a competition about the Bhagavad Gita. Probably written about 2,000 years ago; this writing is perhaps the greatest philosophical expression of Hinduism. I was attracted to the contest because the website included a very favourable comment about the Bhagavad Gita by Albert Einstein (see below). For a while, I actually considered it possible that I'd win the contest. But that time has passed. The winner has been announced and I can now see my entry for what it is – a naïve attempt to preach science to the religionists, as well as a naïve attempt to preach religion to the scientists.

There's a statement in the essay which I'm wondering about. I said, "However, the concept of possessing a soul is not automatically supported. The idea of having a reincarnating soul would be an easy way of explaining immortality thousands of years ago when people were completely unfamiliar with the scientific facts of an eternal universe, Einstein's Unified Field, and fractal geometry." I still think this might be correct. But "might" is the word. I'm wondering about something I later wrote – could the ghostly immaterial body described below be what we call the soul? If such a body is developed in the future to overcome present limitations, could it be referred to as a soul if it travels into the past and is absorbed into a physical body? (It might be what the Bhagavad Gita refers to as the Supersoul, and might be quantum entangled with all space and all time. **And if the physical brain is receptive to this so-called entangled soul's knowledge of everything in space and time, the presently accepted limits to acquiring knowledge would, to use the below quote of Einstein's, be "superfluous"**).

From "Physics and Philosophy Beyond the Standard Model" (<http://vixra.org/abs/1411.0585>) – "In 1925, the Austrian physicist Wolfgang Pauli discovered the exclusion principle. This says two similar particles cannot have both the same position and velocity. If two electrons could have identical positions and velocities, they could all collapse into a roughly uniform, dense "soup". Protons and neutrons would do the same, and there would be no well-defined atoms. So we need the exclusion principle. Force-carrying particles like photons and gravitons do not obey the exclusion principle so we might assume the immaterial body wouldn't be well-defined and would collapse into a ghostly soup. But perhaps a well-defined structure can be built if the photons are first stopped. The potential for photons to possess mass by having their digital sequence altered and being converted to other particles – or the potential for programming the photons - may make this definition possible. A chrononaut whose body is defined by mass would still have a gravitational effect, and be dark matter. But if she or he would rather not be a lump of dark matter, her or

his body might be defined by programming photons and gravitons; creating a body of “light matter”. The beginnings of this technology may be in [43] which speaks of one photon being “stuck” to another.”

Content –

Introduction -

I want to express my ideas about God (whether that being's called God, Jehovah, Elohim, Allah, Vishnu, Krishna or whatever); and my ideas about the nature of this universe. Recalling that Albert Einstein delivered one of your famous quotes*, I state that I believe science will discover God and how creation occurred. But today's science and scientists will never do that (they're stuck in a maze of dead-ends which they can't escape from). The way forward is shown by Einstein's spiritual nature.

* Einstein said, “When I read the Bhagavad Gita and reflect about how God created this universe, everything else seems so superfluous.

Quote from Chapter 5. Karma-yoga--Action in Krishna Consciousness – Verse 29

“The sages, knowing Me as the ultimate purpose of all sacrifices and austerities, the Supreme Lord of all planets and demigods and the benefactor and well-wisher of all living entities, attain peace from the pangs of material miseries.”

Naturally, we all want world peace (except for those devoted to war and violence). It seems obvious that the struggle for peace is the most important thing in nearly everybody's life – and always has been. But this is just one tiny planet occupying a brief moment in an infinite and eternal universe. So in a cosmic context, why is world peace on Earth such a vital thing? It can only be because Earth truly is, in a sense, the centre of the universe. At present (from the viewpoint of time always following a straight line from past to future), there is no life out there - at least not intelligent, civilisation-building, ETs. Life[^] spreads out from this planet to eventually fill the universe – and if the entire cosmos is to avoid collapse into perpetual hatred and warfare, we need to also spread our peaceful civilisation throughout space and time (establishing colonies throughout space and time would prevent overpopulation – instant intergalactic and time travel are explained later).

[^] (To put the following paragraph in proper context, see Mandelbrot Set in “The Universe Will Not End” near this essay's end.) The universe is fundamentally mathematical (see references at end of paragraph), being composed of 1's and 0's (see Digital String Theory). The electronics enables a mind to be downloaded and recorded from the brain it's a product of. Then it can be inserted into a clone

of a person's original body, where it functions dynamically and not as a static "snapshot" from an unchanging brain. This process can be repeated over and over, or genetic engineering – or quantum entanglement with all space and time - might make the clone immortal.

("Is the universe actually made of math?" by Adam Frank -

<http://discovermagazine.com/2008/jul/16-is-the-universe-actually-made-of-math#.UZsHDalwebs>, and

"The Mathematical Universe" by Max Tegmark - <http://arxiv.org/abs/0704.0646>)

These colonies throughout space and time would be composed of what we'd call aliens or extraterrestrials. I may be wrong but I think they'd be our descendants (our descendants could only exist before us if time is not exclusively linear; meaning there IS life and intelligent, civilisation-building ETs out there right now) and might basically think the way we do. I've heard it said that angels rejoiced at the creation of the Earth. I don't think this necessarily has a religious meaning. I suspect it indicates a deep-seated belief in every mind, ancient or modern, that Earth really is important ... that we're not just an insignificant rock orbiting an average star. Maybe life on Earth is the starting point for development of the magnificent Universe this essay speaks of ... and for extraterrestrial life that descends from us, wherever and whenever it may be found.

I believe the future of money is finite. The engineers who build the first interstellar and intergalactic spaceships will be immensely grateful. If money was a factor, even travelling outside a home galaxy would be virtually impossible due to the extraordinary cost. Money has been a necessity for thousands of years on earth. But thankfully, it'll become as extinct as the dinosaurs and humans will be free to explore the cosmos. I think this is how the world could get rid of the almighty dollar –

People might realize that although they have to continually improve their standard of living, they don't have to rely on money to improve their lives. They could search within themselves and unearth the noble trait of self-sacrifice. This allows them to make compromises with one another, ensuring the raising of living standards via cooperation. Not only would this cooperation free humans to explore anywhere and anywhen in space and time; it could rid the world of war, violence and every form of crime.

At the risk of disqualifying myself from this competition, I'll point out that there's no need to spend another 2,000 or more words speaking of Krishna's strategy for peace and happiness in the world. There's no doubting the effectiveness of his strategy but it seems to me that people in the modern world can and will relate to the topic of money (even including its demise) much more readily. Therefore, the strategy for peace and happiness has already been dealt with. I believe the really important point is the exporting of this strategy into the rest of the universe. Before we can do this, we must accomplish much more than a short trip through

space to the Moon (though that was so inspiring, and a necessary springboard for what follows). Now we need to gain a scientifically consistent picture of all space-time so we can travel anywhere and anywhen in the eternal infinity of the universe, and fill every part of its space-time with peace and happiness.

Essay –

Digital String Theory and Creating the Universe from Something

Let's borrow a few ideas from string theory's ideas of everything being ultimately composed of tiny, one-dimensional strings that vibrate as clockwise, standing, and counterclockwise currents in a four-dimensional looped superstring ("Workings of the Universe" by Time-Life Books (1991, p.84). We can visualize tiny, one dimensional binary digits* of 1 and 0 (base 2 mathematics) forming currents in a two-dimensional program called a Mobius loop – or in 2 Mobius loops, clockwise currents in one loop combining with counterclockwise currents in the other to form a standing current. Combination of the 2 loops' currents requires connection of the two as a four-dimensional Klein bottle. This connection can be made with the infinitely-long irrational and transcendental numbers (see next paragraph for support of the universe's infinity)**. Such an infinite connection translates - via bosons being ultimately composed of the binary digits of 1 and 0 depicting pi, e, $\sqrt{2}$ etc.; and fermions being given mass by bosons interacting in matter particles' "wave packets" – into an infinite number of (possibly Figure-8) Klein bottles which are, in fact, "subuniverses". Binary digits fill in gaps and adjust edges of our 13.8-billion-year-old subuniverse to fit surrounding subuniverses (similar to manipulation of images by computers). Such manipulation also allows the appearance of motion where there is none (like in the individual cartoon frames called cells), and the appearance of a stream of photons when there is only one. Slight "imperfections" in the way the Mobius loops fit together determine the precise nature of the **binary-digit currents (the producers of space-time, gravitational waves, electromagnetic waves, the nuclear strong force and the nuclear weak force)** and thus of exact mass, charge, quantum spin.

* Maybe binary digits are able to be called hidden variables - Einstein said hidden variables carry extra information about the world of quantum mechanics and complete it, eliminating probabilities and bringing about exact predictions. The 1's and 0's in space-time's so-called vacuum are usually labelled "virtual particles". The idea of quantum fluctuations is valid (a quantum fluctuation is the temporary change in the amount of energy at a point in space, and the fluctuations of 1's and 0's change the energy in quantum-size [subatomic] regions of space-time). But modern science is incorrect when it uses quantum fluctuation to explain the universe originating from nothing. This violates its own Law of Conservation of Mass-Energy which says neither matter nor energy can ever be created (or destroyed). This essay will propose that the 1's and 0's of human computer science are looped back to the past and manifest as mass-energy (time travel of

our computer science ... it sounds like science fiction but everything will be explained): so the universe originates from something.

Quote from Chapter 7. Knowledge of the Absolute – Verse 6

“Of all that is material and all that is spiritual in this world, know for certain that I am both its origin and dissolution.”

(The origin and dissolution of this world also applies to the beginning and end of this subuniverse. However, the universe as a whole is infinite and eternal (8-20).

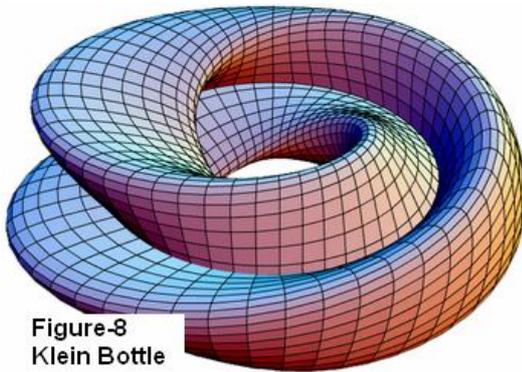
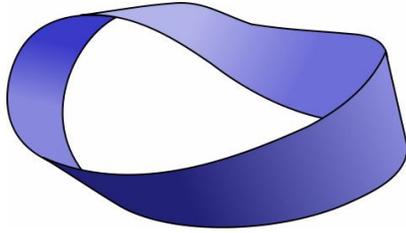
Quote from Chapter 8. Attaining the Supreme – Verse 20

“Yet there is another nature, which is eternal and is transcendental to this manifested and unmanifested matter. It is supreme and is never annihilated. When all in this world is annihilated, that part remains as it is.”

** "Infinite Universe" by Bob Berman, "Astronomy" (Nov. 2012) says, "The evidence keeps flooding in. It now truly appears that the universe is infinite" and "Many separate areas of investigation – like baryon acoustic oscillations (sound waves propagating through the denser early universe), the way type 1a supernovae compare with redshift, the Hubble constant, studies of cosmic large-scale structure, and the flat topology of space – all point the same way." Support for the article – a) after examining recent measurements by the Wilkinson Microwave Anisotropy Probe, NASA declared "We now know that the universe is flat with only a 0.4% margin of error." (WMAP's Universe (http://map.gsfc.nasa.gov/universe/uni_shape.html) and b) according to "The Early Universe and the Cosmic Microwave Background: Theory and Observations" by Norma G. Sánchez, Yuri N. Parijskij - published by Springer, (31/12/2003), the shape of the Universe found to best fit observational data is the infinite flat model)

Each "subuniverse" (bubble or pocket universe) is one of an infinite series composing the physically infinite and eternal space-time of the universe. The infinite numbers make the cosmos physically infinite, the union of space and time makes it eternal, and it's in a static or steady state because it's already infinite and has no room for expansion. Our own subuniverse has a limited size (and age of 13.8 billion years), is expanding, and has warped space-time because it's modelled on the Mobius loop, which can be fashioned by giving a strip of paper a 180-degree twist before joining the ends.

Mobius Loop



Quote from Chapter 11. The Universal Form – Verse 20

“Although You are one, You are spread throughout the sky and the planets and all space between. O great one, as I behold this terrible form, I see that all the planetary systems are perplexed.”

What if Digital String Theory is correct in asserting that bosons are ultimately composed of the binary digits of 1 and 0 depicting π , e , $\sqrt{2}$ etc.; and fermions are given mass by bosons interacting in matter particles’ “wave packets”? Then the 1’s and 0’s of computer science could be assembled into a computer simulation of space-time and the cosmos. If that simulation was not restricted to a single room and period, but filled all of space and all of time, it would no longer be just a simulation – it would become the universe itself, and the reality everyone has ever lived in or will be born into*. The universe is quantum entangled (unified) by everything having the same origin of binary digits – permitting one to not be in a single place and time but to be “spread throughout the sky and the planets and all space between.” This universe/binary digit entanglement is consistent with the cosmos being no more or less than the ultimate computer simulation – one affecting all senses and all detectors.

* This entire universe will, being a computer simulation, be filled with advanced artificial intelligence (AI) and consciousness – and since there is no separation or distance in its unification (see the latter sections in this essay), also be filled with human/humanoid intelligence, personality and consciousness. Erwin Schrodinger

(1887-1961), the Austrian theoretical physicist who achieved fame for his contributions to quantum mechanics and received the Nobel prize in 1933, had a lifelong interest in the Vedanta philosophy of Hinduism and this influenced Schrodinger's speculations at the close of his 1944 book "What is Life?" about the possibility of individual consciousness being only a manifestation of a unitary consciousness pervading the universe.

Here are a few thoughts concerning cosmogenesis –

Mobius loop: This is how it might be used in building a universe - We write down everything our species has learned (an "Encyclopedia Universalis"). Instead of using ink, we use the binary digits of 1 and 0. And we do not write on paper or in computers in a linear fashion (one line after the other ... left to right, top of page to bottom). We "write" in the warps of space-time and hyperspace and do so in Mobius fashion (everything is written so that it's comparable to being on a piece of paper that's given a twist before the ends are joined). This causes curving and warping in space-time, confusion of "here" and "there" (quantum entanglement), and muddled causes and effects (retro- or backward causality). Because of this entanglement of all time and space; if the writing is done in the year 3,000 it might possibly still include the knowledge of the year 3,000,000 or 3,000,000,000 and so on.

The Universe Will Not End

The universe is infinite and eternal (see "Digital String Theory") not only into the future but also into the past. It will never end - and this is why it had no beginning: The space-time we live in is described by ordinary [or "real"] numbers which, when multiplied by themselves, result in positive numbers e.g. $2 \times 2 = 4$, and -2×-2 also equals 4. Inverted "positive" space-time becomes negative hyperspace which is described by so-called imaginary numbers that give negative results when multiplied by themselves e.g. i multiplied by itself gives -1 . Entering hyperspace with its negatives (energy, matter, distance, time) permits travel to the past since it would be impossible to travel 700 lightyears there, and only possible to travel minus 700 lightyears. Doing so instantly would enable a spaceship to arrive at a spot in the past which a light beam could only reach by traversing negative distance for 7 centuries.

Applying this practically, a 2009 electrical-engineering experiment at America's Yale University, together with the ideas of Albert Einstein, tells us how we could travel to other stars and galaxies in literally no time. Electrical engineer Hong Tang and his team at Yale demonstrated that, on silicon-chip and transistor scales, light can attract and repel itself like electric charges or magnets ("Tunable bipolar optical interactions between guided lightwaves" by Mo Li, W. H. P. Pernice & H. X. Tang - Nature Photonics 3, 464 - 468 (2009). This is the "optical force". For 30 years until his death in 1955, Einstein worked on his Unified Field Theory with the aim of uniting electromagnetism (light is one form of this) and

gravitation. Achievement of this – see “Digital String Theory” for a proposed method - means the microscopic components (gravitons) of warps of space (gravity, according to General Relativity) between spaceships and stars could mimic the Optical Effect and be attracted together, thereby totally eliminating distance (this is similar to traversing a wormhole, or shortcut, between two folds in space-time). Distance is not only deleted in space. There would no longer be any “distance” in time. Just as we can journey to particular stars, we could take trips to particular years in the past or future. Now we just need some clever engineers to design a spacecraft that works according to the Einstein-Yale principle.

Quoting Chapter 13. Nature, the Enjoyer, and Consciousness – Verse 20

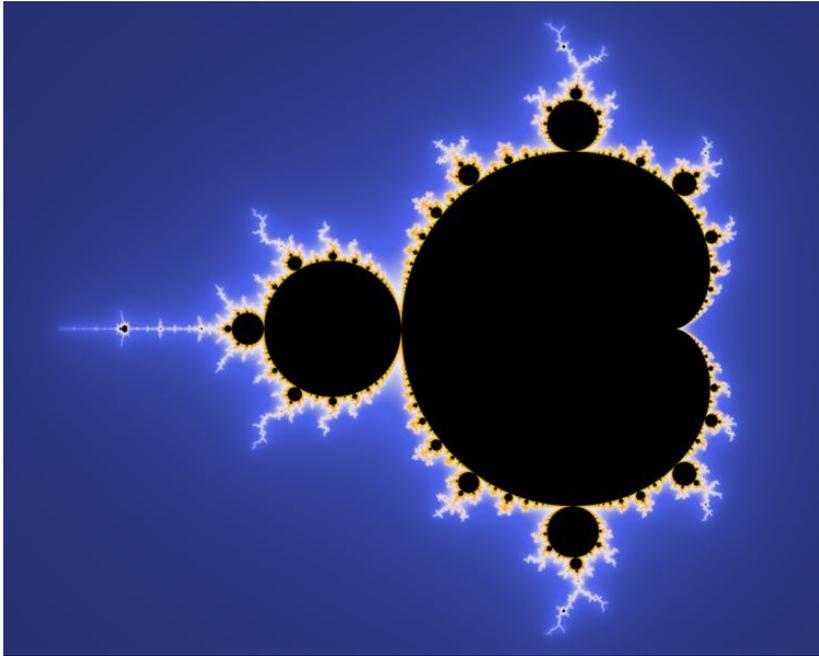
“Material nature and the living entities should be understood to be beginningless.”

By employing Intergalactic/Time Travel, the beginning of each subuniverse can be at any location in space and time. Since the number of subuniverses is infinite, their beginning-locations in space and time are literally infinite (this is the same as saying there is no start to the universe as a whole). If a subuniverse ends, another can be started in its place – and the universe as a whole has no end.

Quote from Chapter 13. Nature, the Enjoyer, and Consciousness – Verse 28

“One who sees the Supersoul accompanying the individual soul in all bodies, and who understands that neither the soul nor the Supersoul is ever destroyed, actually sees.”

(Usually, Supersoul means Vishnu. In the paragraph below, Supersoul refers to the universe as a whole – because of quantum entanglement, the universe and Vishnu/Krishna can be regarded as the same thing. We have seen that the universe is endless and beginningless.



MANDELBROT SET: Mathematician Benoit Mandelbrot developed this fractal geometry, and coined the word fractal in 1975 (a fractal is a shape such that, if you look at a small piece of the shape, then it looks the same as the original, just on a smaller scale – it is used to describe coastlines, mountain ranges, etc). The diminishing size of spheres may be seen as representing cosmic, galactic, human, quantum scales. Since the universe as a whole has no beginning or end, how can any small piece of that universe (such as a human life) have a beginning or end? Certainly, parts of the universe appear to cease to exist e.g. individual stars can become supernovas. But think of time as a “cosmic DVD” with all of the past and future always existing though the present is considered to be only the extremely tiny portion of the disk illuminated by the “cosmic laser” (more about the cosmic DVD in a few pages). Then the DVD can be rewound (fast backwarded) and the star will once more be fusing hydrogen into helium. Intelligences with advanced technology like downloading and time travel could learn to use the technologies so they could attain immortality in their physical bodies. However, the concept of possessing a soul is not automatically supported. The idea of having a reincarnating soul would be an easy way of explaining immortality thousands of years ago when people were completely unfamiliar with the scientific facts of an eternal universe, Einstein’s Unified Field, and fractal geometry (like topology or “rubber-sheet geometry”; fractal geometry complements Einstein’s geometric description of space-time and gravitation in General Relativity). Existence is change – from being a baby, to being a young person, to being an old person. Death isn’t the end but simply another change. That change may be to the state we were in prior to birth. Near the beginning of this essay, it was seen that immortality (**in a physical body**) actually results from downloading + cloning (this could be called uniting the spiritual body with the physical body, which could be genetically engineered for perfect physical and

mental health). If the mind is downloaded into a clone after death, that's resurrection (and that mind – being quantum entangled with all spacetime [see below] - can time travel to make its presence felt centuries or millennia in the past, even immediately after death). If the mind is downloaded into a fetus, it's born and will develop into its mature state as the child's brain develops.

Conclusion – Carl Sagan And The Gods

Do you know what all this means when it's condensed into a few sentences? It means mathematics is united with the physical world, and miracles can occur. Computer programs are written with the binary digits of 0 and 1 - and these digits compose a form of maths. So anything you see on a computer screen can happen in real life. You don't even need to be a mathematician or computer programmer. All things (matter, energy, space, time, etc.) are part of Einstein's Unified Field. Your mind is already entangled and united with all maths and all computers.

Quote from Chapter 11. The Universal Form – Verse 4

“If You think that I am able to behold Your cosmic form, O my Lord, O master of all mystic power, then kindly show me that universal Self.”

Consider what American astronomer and author Carl Sagan (1934-1996) had to say in “Pale Blue Dot – A Vision of the Human Future in Space” by Carl Sagan - Headline Book (1995, p. 382): “Many religions, from Hinduism to Gnostic Christianity to Mormon doctrine, teach that – as impious as it may sound – it is the goal of humans to *become* gods.” Perhaps, in the distant future, we can all have an immaterial body designed in the far future to overcome physical limitations (and that body might be quantum entangled with all space and time[^]). The portion of that sentence referring to the body anticipates possible developments from the concept of an immortal, immaterial soul advocated by ancient Greek philosopher Plato and his followers; as well as from the belief of the Mormons that God has a **glorified** body of flesh and bone (“Mormons” by Mark E. Petersen – The World Book Encyclopedia (1967) which I hypothesize would be quantum entangled with all space and time. The portion referring to quantum entanglement says entanglement exists not merely in the present but also reaches into the past (“Experimental delayed-choice entanglement swapping” by Xiao-song Ma, Stefan Zotter, Johannes Kofler, Rupert Ursin, Thomas Jennewein, Časlav Brukner & Anton Zeilinger - Nature Physics 8, 479–484 (2012) and “Weird! Quantum Entanglement Can Reach into the Past” by Clara Moskowitz, LiveScience Senior Writer | April 30, 2012) ... and Einstein’s Unified Field extrapolates this entanglement to perception of the future[^]. Entanglement of all space and time (no doubt many people, even today, would call invisible, endlessly powerful, entangled beings “supernatural”) means eternal God and

humanity of the far future are not separate in any sense but are the same thing. These beings can affect the past and thus have a relationship with people living in earlier times. A name used for God in the Old Testament is Elohim, which means the “plural majesty of the one god” i.e. the billions of earth’s inhabitants entangled with, and dispersed throughout, the united infinity of the universe and eternity of time.

^ The future could never be perceived unless it already exists – time would resemble a “cosmic DVD”, with all of the past and future always existing though the present is considered to be only the extremely tiny portion of the disc illuminated by the “cosmic laser”. The portion illuminated corresponds to the consciousness. Since every conscious being who ever lived, is alive now, or is yet to be born illuminates a different segment of the disc; there is only an eternal present and the disc parts which a particular consciousness are not shining on are its unconscious realms (of course, this only applies to minds not quantum entangled with all space and time – entangled minds are unconscious of nothing, and can direct their consciousness anywhere in space and time). If so, it’d be unnecessary to physically travel. Everyone would possess complete ESP and telekinetic (psychokinetic) abilities, and could both perceive everything and manipulate all things in space or time by remote control.
