U.S. voted for change in approach to politics – I vote for change in approach to science

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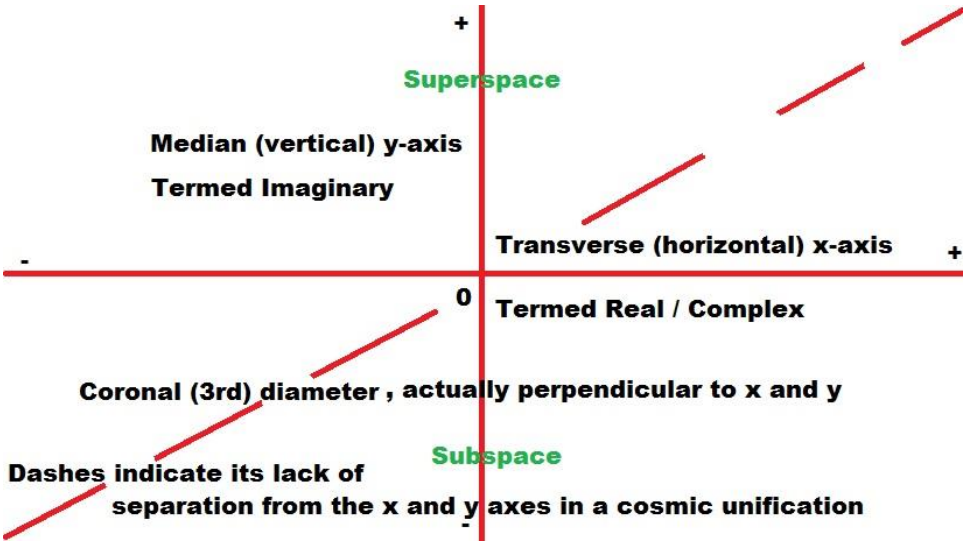
Abstract -

What kind of President will Donald Trump be? I don't know. It's possible that in the 22nd century, virtually nobody will remember his name. It's also possible that he'll be called a great man who gave America and the world exactly the kind of change the world of this time required. In an article for the 1967 World Book Encyclopedia ("How to Prepare for the Presidency"), President John F. Kennedy said, "… greatness depends on the times as well as the man." By the way - I once saw a photo of Bill Clinton, the former President and husband of the losing candidate Hillary Rodham Clinton, shaking hands with President Kennedy in the early 1960's. In his article, John has this advice for Hillary: "… if some chance keeps you from the presidency, you will still know that you are prepared to serve well your nation as a citizen."

The President-elect has no previous experience in politics. Neither does he feel obligated to conform to political traditions. Little me has no formal qualifications in science – while I recognize the necessity of using the various branches of science and mathematics as an indispensable guide, there is no feeling that scientific tradition must be followed because the centuries show that today's science is often tomorrow's obsoleteness. I'm in the mood to stop taking baby steps, and to try and explain much of the universe in one message. I know it isn't considered scientific to try and explain so much in one sitting. But I'm not a professional scientist, so me and my intuition are free to explore all the outrageous ideas I feel like – they satisfy my curiosity and imagination and are interesting, if nothing else.

Article -

Imaginary is Real and Holograms in Flatland



I never mean to suggest that extra time and extra space dimensions are not real. Such confusion seems possible because of my reference to the Complex Number Plane's imaginary time. When Max Planck originated the idea of quanta to solve the ultraviolet catastrophe, I'm sure that idea (like so-called "imaginary" time) was initially thought of as a mathematical trick. Albert Einstein thought differently about quanta, and developed his photoelectric effect. So it appears entirely possible that imaginary time and the Complex Number Plane will find practical application in the future, at which point they'll cease being mathematical trickery and analytic continuation. Imaginary time will be a real, large-scale thing: with the word imaginary being only a poorly chosen adjective, and a relic from history.

A crude analogy to extra dimensions being interpreted by humans on 4-dimensional (3 space/1 time) Earth is that of 2-dimensional creatures interpreting shadows from a light shining in a 3-dimensional room. It reminds me of Edwin Abbott's Flatland and also of "The Long Track of the Moon" by Stephen James O'Meara (in the column “Secret Sky” in Astronomy magazine - September 2013). That article speaks of the Moon reflecting in the multitude of wavelets over a body of wavy water (the reflection's called a glitter path). It says, “If you could separate the multitude of wavelets and look at them in detail, you would see that each and every one of them reflects a complete, though distorted, image of the Moon …” Following Einstein's paper that asks "Do gravitational fields play an essential role in the structure of elementary particles?",* our brains and the universe could be considered holograms in the sense of being interference patterns set up by interacting gravitational and electromagnetic waves. Neuroscientist Karl Pribram and quantum physicist David Bohm said our brains are holograms. (Forsdyke, D. R. [2009] - "Samuel Butler and human long term memory: Is the cupboard bare?", Journal of Theoretical Biology. 258: 156–164. doi:10.1016/j.jtbi.2009.01.028). Bohm later said brains are smaller pieces of the larger holographic image known as the cosmos, and that they

contain the whole knowledge of the universe (Geoff Haselhurst - "David Bohm and the Holographic Universe" [2005], http://www.bibliotecapleyades.net/ciencia/ciencia_holouniverse04.htm). Each mind always contains the whole picture, but with an unclear perspective i.e. its knowledge is “complete (like the moon), though distorted (like the glitter path)”.

* "Spielen Gravitationfelder in Aufbau der Elementarteilchen eine Wesentliche Rolle?” ["Do gravitational fields play an essential role in the structure of elementary particles?"] by Albert Einstein - Sitzungsberichte der Preussischen Akademie der Wissenschaften, [Math. Phys.], 349-356 [1919] Berlin.

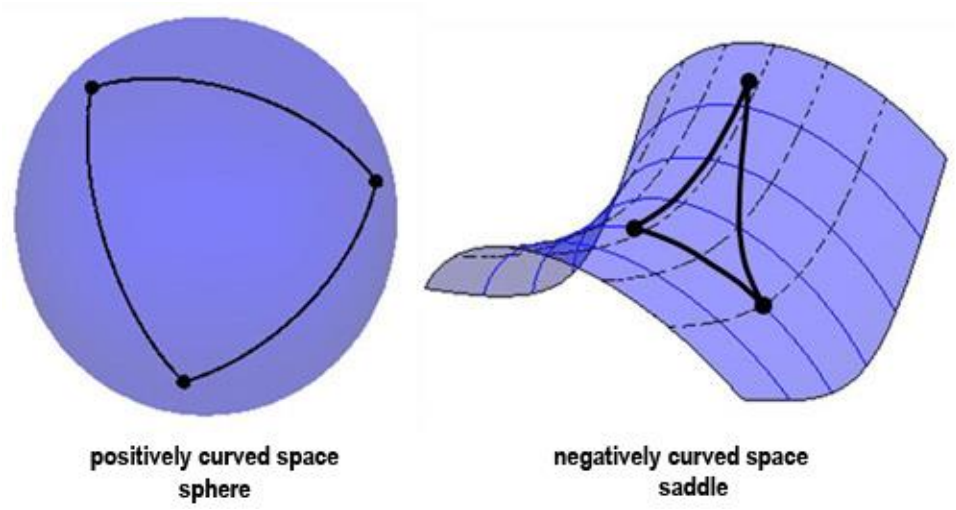
Unifying Phenomena

Professor Itzhak Bars from the University of Southern California has written, "the role of 2T-physics (two-time physics, an extra dimension to the time we know) is to unify various physical phenomena into a more comprehensive and more predictive theory." This sentence can be taken back to the Complex Number Plane if the plane's so-called imaginary time is oneday accepted as the real two-time. And referring to John Cramer's Transactional Interpretation of Quantum Mechanics/the Wheeler-Feynman absorber theory, the Plane could unify various phenomena in the following way – electromagnetic waves could travel forwards in time along the right-hand direction of its x-axis, and they could travel back in time in the left-hand direction. Albert Einstein's equations say that in a universe possessing only^ gravitation and electromagnetism, the gravitational fields carry enough information about electromagnetism to allow the equations of James Clerk Maxwell to be restated in terms of these gravitational fields. This was discovered in 1925 by the mathematical physicist George Yuri Rainich.

^ Einstein's paper titled "Do gravitational fields play an essential role in the structure of elementary particles?" was written prior to the discovery of the nuclear forces. However, it seems to imply to modern science that the 2 nuclear forces are not fundamental but, like the matter they're associated with, are products of gravitational - electromagnetic interaction (a coupling which produces the mass of W and Z particles – as well as the Higgs particle). This agrees with theories in which the role of the mass-bestowing Higgs field is played by various couplings (see M. Tanabashi; M. Harada; K. Yamawaki. Nagoya 2006: "The Origin of Mass and Strong Coupling Gauge Theories". International Workshop on Strongly Coupled Gauge Theories. pp. 227–241).

So there are 'advanced' gravitational waves going back in time ... these could be called antigravity. Antigravity has been equated with dark energy and, if real gravity is involved in ordinary matter's mass-production, antigravity would conceivably be involved in the mass-production of other matter called "dark" (which would not be WIMPs, sterile neutrinos, axions or any particles that travel forwards in time). Does dark matter belong to a higher dimension where antigravity - gravitational waves going back in time - exists on the "complex axis".

Newtonian Gravity, Dark Matter



positively curved space
sphere

negatively curved space
saddle

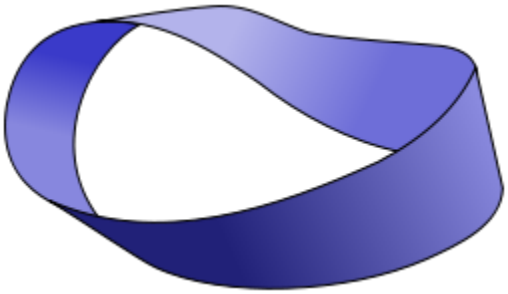
Gravity's a push and the reverse motion of complex gravity causes complex gravity to act in the reverse manner - as a pull. In real space-time, the Sun lies in a depression or valley, and the Earth rolls towards it. We could say gravity pushes … gravitational waves push … Earth to the Sun. But in complex space-time, the Sun instead sits on a high hill, and the Earth rolls away from it. We could say complex gravity pulls … complex gravitational waves pull … Earth away from the Sun (like science fiction's tractor beam). The depression of real gravity and the hill of complex gravity fit together like closed, positive curvature of a spherical portion of space-time neatly fits into the open, negative curvature of a saddle-shaped (hyperboloid) part of space-time. Like the pommel protruding from the front of a saddle, negative curvature can cause an "imaginary" space and imaginary time to extend/be extruded 90 degrees from the "surface" of real, flat space-time. This makes imaginary time a real phenomenon, and no longer purely mathematical. Through their union, positive and negative curvature ultimately cancel each other on the largest scales to produce the flatness of infinity/eternity.

When Isaac Newton described gravitation as a pull attracting objects, was his genius unconsciously reaching into the 21st century and anticipating complex gravity? Newton's idea of gravity acting instantly across the universe could be explained by complex gravity's ability to travel back in time, and thereby reach a point billions of light years away not in billions of years, but apparently instantly. It could even arrive at that point sooner than instantly. However, that is not a violation of cause and effect. The complex gravitational wave cannot affect a spot at any distance until it begins its journey … until it begins travelling back in time.

One way of determining if dark matter belongs to a higher dimension would be to measure its gravitational effects in space dimensions (see "A Brief History of Time" by Stephen Hawking – Bantam Press 1988, pp. 164-165). In three dimensions, the gravitational force drops to 1/4 if one doubles the distance. In four dimensions (4th-dimensional hyperspace), it would drop to 1/8 and in five dimensions (5th-dimensional hyperspace) to 1/16. The positive direction on the x-axis (representing the 3 space dimensions of real space-time) is in continuous contact with the negative direction on x (the 5th space dimension of complex space-time). Therefore, real gravity is perpetually amplified by complex gravity. Using Professor Hawking's figures, the amplification equals ¼ x ¼ ie doubling the distance in 5 space dimensions causes gravity to become 1/16 as powerful. It is not ¼ x -¼ since numbers have the same property regardless of direction on the Complex Number Plane (they increase in value). To conserve this sameness, the second one must be +¼ if the first one is +¼. Alternatively, the gravity's strength is reduced 4 times and this number is multiplied by another 4 to reduce it 16 times overall. In the 4th space dimension/2nd time dimension represented by the imaginary axis, this y-axis is half the distance (90 degrees) from the real x-axis that the complex x-axis is (it's removed 180 degrees). So gravitational weakening from doubling distance in 4 space dimensions = (reduction of 4 times multiplied by another reduction of 4 times) / 2, for an overall reduction of 8 times to a strength of 1/8. Only 5 space dimensions can exist – along with real time, imaginary time and complex time.

By the way - if matter's composition is a gravitational-electromagnetic coupling, and if both gravitational and electromagnetic waves can travel forwards and backwards in time, then all matter has the innate ability to defy modern physics and journey into the past. Wouldn't gravity go a long way to producing cosmic unification – the idea behind Einstein's Unified Field Theory - if it can instantly affect any point in the universe, and also helps form matter and any other form of mass? All that remains is to develop a revised theory of supersymmetry that unites matter's fermions with light's photons – and to remember that a Unified Field must inevitably give scientific support to things like astrology, extrasensory perception, telekinesis, and the concept of every human being united with every other human.

SUSY 2



Mobius Strip

A plausible method is to code electronics' binary digits into programs arranged in the shape of Möbius strips, then combine the strips to form 4-dimensional figure-8 Klein bottles [Polthier K, "Imaging maths - Inside the Klein bottle" - https://plus.maths.org/content/os/issue26/features/mathart/index]. The figure-8 Kleins compose all particles, fermionic as well as bosonic: and the figure-8 version is implied because it resembles spiral galaxies and cosmology's hypothetical doughnut model of the universe (”What Shape is the Universe?" by Vanessa Janek: (May 11, 2015) http://www.universetoday.com/120157/what-shape-is-the-universe/#google_vignette). Figure-8 Kleins include positive curvature in their shape which creates the curvature of space around Jupiter that refracts quasar signals. This combines with the negative curvature in other Klein bottles to ultimately create the large scale flatness of space-time).

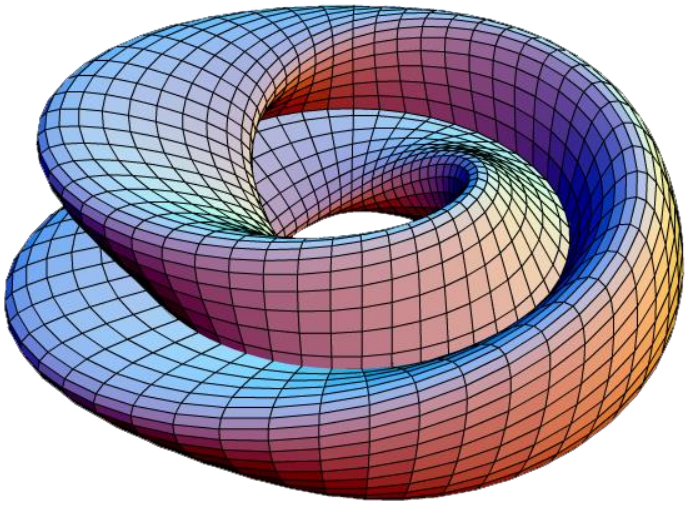


figure-8 Klein Bottle

If figure-8 Klein bottles curve space positively around Jupiter, it would be because they make up particles of gravity ie the presently hypothetical gravitons. The deflection caused to light or radio waves is positive because of the law associated with electric charges and magnetic poles - likes repel and unlikes attract. Light and radio are forms of electromagnetism, so the likes-unlikes principle naturally applies to them too. Since figure-8 Kleins compose every particle, particles must initially contact each other with either a positive or negative surface belonging to the Klein. Two likes - such as the)(shape of a couple of positive surfaces, or the ( ) of 2 negatives, nearing a central point - will not fit together when they meet. They remain separate - those particular gravitons stay near Jupiter while photons are repelled and deflected (reflected), possibly towards Earth. Two unlikes - such as the)) of positive and negative Klein parts approaching, or the ((of negative and positive parts approaching - do complement one another's shape like lock and key, or a protein and its receptor. Attraction occurs and the photon and graviton are absorbed into each other, producing a GEM (GravitoElectroMagnetic particle). This GEM is the end product of a revised hypothesis of supersymmetry and fulfills the concept of cosmic unification.

Topological Insulators, More SUSY 2

Symmetry Protected Topological (SPT) Order is a kind of order in topological insulators where, if symmetry is preserved during the deformation undergone in topology ("rubber-sheet geometry"), a phase transition from one state of matter to another must occur. In other words, if the shape of a Möbius strip - or the union of two strips into a four dimensional Klein bottle - is preserved, phase transition must occur just as orientation-reversing curves occur in the Möbius and Klein.^ The above works in both bosonic and fermionic systems - respectively, systems of force-carrying and matter particles.
(Zheng-Cheng Gu, Xiao-Gang Wen, "Tensor-Entanglement-Filtering Renormalization Approach and Symmetry Protected Topological Order", Phys. Rev. B80, 155131 [2009], and
Frank Pollmann, Erez Berg, Ari M. Turner, Masaki Oshikawa, "Symmetry protection of topological order in one-dimensional quantum spin systems", Phys. Rev. B85, 075125 [2012]).

^ "The Shape of the Universe" by Stacy Hoehn, formerly of Vanderbilt University's Mathematics Department (https://my.vanderbilt.edu/stacyfonstad/files/2011/10/ShapeOfSpaceVandy.pdf)

In Band Theory, bands describe the range of energies that an electron within the solid may have (the ranges it may not have are called band gaps or forbidden bands). See "Energy levels and energy bands" (ecee.colorado.edu/~bart/book/eband2.htm), and "The energy band diagram of the Metal-Oxide-Silicon (MOS) Capacitor"

(ecee.colorado.edu/~bart/book/moseb.htm), and "Band diagram" (https://en.m.wikipedia.org/wiki/Band_diagram). Since bands and band gaps describe an electron's wave function, they are compatible with the following description: matter particles are described as spin 1/2 and need to be turned through two complete revolutions to look the same*, plus it's necessary to travel around a Möbius strip twice to reach your starting point.

* "A Brief History of Time" by Stephen Hawking (Bantam Press, 1988): pp.66-67

It therefore appears that electrons and all particles of matter could possibly be composed of Möbius strips. A step up from the Möbius would see the strips combine into figure-8 Klein bottles before reaching the scale of subatomic particles, and a step down could see the strips becoming programs consisting of electronics' binary digits 1 and 0 ordered (organized) in the shape of the Möbius (please see the section on topological cosmology). 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 - "Workings of the Universe" by Time-Life Books (1991, p.84). One Möbius-strip program could be coded clockwise, another anticlockwise, and their interaction would produce a Möbius possessing a standing current of streaming binary digits.

The theory of supersymmetry (SUSY) relates the two classes of elementary particles – bosons (force-carrying particles) and fermions (particles of matter). This commentary relates fermions (matter particles) to binary digits and the Mobius strip via Professor Hawking's book "A Brief History of Time". The world's largest and most powerful particle collider, the Large Hadron Collider (LHC) on the France-Switzerland border, has found no evidence for supersymmetry thus far and some physicists have decided to explore other ideas (Ellis, John: "The Physics Landscape after the Higgs Discovery at the LHC": 14 April 2015: www.arXiv:1504.03654). So the commentary doesn't relate fermions to bosons through SUSY but through the Möbius, which means the structure of e.g. light's photons is also nonorientable - each of them includes the orientation-reversing curve of the Möbius strip and the Klein bottle (topological cosmology advocates the figure-8 version of Klein bottle).

Topological Cosmology

While the expansion of space appeared to be confirmed by Edwin Hubble's 1929 observations, Hubble always disagreed with the expanding-universe interpretation of the data:

"… if redshift are not primarily due to velocity shift … there is no evidence of expansion, no trace of curvature … and we find ourselves in the presence of one of the principles of nature that is still unknown to us today … whereas, if redshifts are velocity shifts which measure the rate of expansion, the expanding models are definitely inconsistent with the observations that have been made … expanding models are a forced interpretation of the observational results."

("Effects of Red Shifts on the Distribution of Nebulae" by E. Hubble, Ap. J., 84, 517, 1936)

It seems to me that the universe is not physically expanding from a Big Bang at all. It appears to be undergoing topological extension in a Steady State. Computers' binary digits could be encoded by the quantum fluctuations / energy pulses called Virtual Particles which fill space-time. This is possible because the motions of virtual particles may not be random but may obey Chaos theory's principle of "order within apparent disorder" (chaos theory is sometimes called the third most important discovery of recent science, after Relativity and quantum mechanics). The digits are coded into the form of two-dimensional programs shaped as Mobius strips which are joined as four-dimensional figure-8 Klein bottles (this process accounts for General Relativity's curvature of space-time). The bottles are extended from math form to structures in space-time that the energy of gravitational - electromagnetic interaction gives tangible form to. The above would only necessitate a God if time was exclusively a straight line. Since Einstein showed that space and time are curved, it's within the potential of future humanity to be responsible for the universe's creation.

Is it possible that the extension by mathematical topology's figure-8 Klein bottles is, in Edwin Hubble's words, "one of the principles of nature that is still unknown to us today"? It would replace the expanding-universe model which Hubble always disagreed with and be the cause of measurements of redshift and the Hubble constant. This constant would, in reality, measure topological extension rather than physical expansion. Regarding photons (e.g. microwave photons) alleged to be leftover from the Big Bang - they could be weakened by collisions with dust, gas and stars etc; and wavelengths would be redshifted by (perceived) distance to microwave wavelength from a higher, possibly gamma-ray, wavelength).

A diagram of many figure-8 Klein bottles would show that their positive curvature (on the spherical parts) fits together with their negative curvature (on saddle-shaped parts) to cancel and produce the flatness of space-time's infinity/eternity (Hubble's "no trace of curvature"). Referring to mathematics' Complex Number Plane: like the pommel protruding from the front of a saddle, negative curvature can cause an "imaginary" space and - thanks to the indissoluble union of spatial plus temporal phenomena – the well established "imaginary" time; to extend 90 degrees from the "surface" of real, flat space-time. In this way, imaginary time gains reality and is no longer a mere mathematical trick.

For the note below on the figure-8 Klein bottle, I refer to – (11), (12), (13), (14), (15).

(11) Bourbaki, Nicolas (2005). "Lie Groups and Lie Algebras". Springer
(12) Conway, John (1986). "Functions of One Complex Variable I". Springer
(13) Gamelin, Theodore (January 2001). "Complex Analysis". Springer
(14) Joshi, Kapli (August 1983). "Introduction to
General Topology". New Age Publishers

(15) Spanier, Edwin (December 1994). "Algebraic Topology". Springer

Informally - if an object in space consists of one piece and does not have any "holes" that pass all the way through it, it is called simply-connected. A doughnut (and the figure-8 Klein bottle it resembles) is “holey” and not simply connected (it’s multiply connected). "Some scientists believe that large warm and cool spots in the Cosmic Microwave Background could actually be evidence for this kind of ... (doughnut/figure-8 Klein bottle) ... topology" (”What Shape is the Universe?" by Vanessa Janek: (May 11, 2015) http://www.universetoday.com/120157/what-shape-is-the-universe/ - see later (in next paragraph) where figure-8 Klein bottles can be made into plausible subunits of a flat and infinite universe.

A flat universe that is also simply connected implies an infinite universe. (Luminet, Jean-Pierre; Lachi`eze-Rey, Marc - "Cosmic Topology" - Physics Reports 254 (3): 135–214 (1995) www.arXiv:gr-qc/9605010) So it seems the infinite universe cannot be composed of subunits called figure-8 Klein bottles. But positive and negative curvatures can complement each other's shape, and digitised images can morph to perfect the complementarity if necessary (perhaps by binary digits filling in gaps and irregularities in the same way that computer drawings can extrapolate a small patch of blue sky to make a sky that's blue from horizon to horizon). This makes space-time relatively smooth and continuous - and gets rid of holes, making these types of Klein subunits feasible.

On the subject of feasibility:

"If the universe was nonorientable ie if it contained orientation-reversing curves such as the Möbius and Klein, there would be strange physical consequences that have not yet been observed. While they could be happening outside of our field of vision, it is unlikely that our universe is nonorientable." ("The Shape of the Universe" by Stacy Hoehn, formerly of Vanderbilt University's Mathematics Department: https://my.vanderbilt.edu/stacyfonstad/files/2011/10/ShapeOfSpaceVandy.pdf - October 13, 2009)

[My comment: It can indeed be nonorientable if these strange physical consequences are happening outside of our field of vision i.e. if the universe is infinite*. What I regard as the strangest physical consequence would be that of the universe violating the Copernican ideal – this ideal makes man's view as typical and ordinary throughout the course of time as it is throughout the extent of space. Violating that ideal means our little corner of space-time really is different, in non-fundamental ways, from particular portions of the rest of spacetime (those different parts would still have binary digits / Mobius strips / figure-8 Klein bottles as their basis). Another strange consequence is the extra dimensions of time and space.

* “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 largescale structure, and the flat topology of space – all point the same way.”("Infinite Universe" by Bob Berman: “Astronomy” – Nov. 2012)

The Klein bottle is a closed surface with no distinction between inside and outside. There cannot be other universes outside our infinite and eternal universe – there’s only one cosmos. To be fair, it could be called a multiverse since it's composed of multiple - even infinite - figure 8 Klein bottles.

The above paragraphs seem to explain astronomer Alex Filippenko's statement, "there's something important missing in our physical understanding of the universe." ("Universe expanding faster than expected" by Korey Haynes - Astronomy Magazine's October 2016 issue, p.11)

Radioactive Dating

Every type of radioactive dating (eg potassium-argon or uranium-lead etc to date rocks, carbon-14 to date organic material) produces erroneous results since it does not include gravitation playing a role in matter, nor the travelling back in time of gravitational waves. If all the radiation and emitted particles from a radioactive meteorite used to date the solar system were going forward in time, the result certainly could approximate 4.5 billion years old. If 100% of the rays and particles were going back in time, the solar system's age would be calculated to be zero. In reality, some waves/particles are going forward and some are travelling backwards. So the truth is that our Sun, planets, prehistoric ancestors etc are aged somewhere between zero any-kind-of-units and 5 billion years.

Earlier, it was stated that "… our Sun and planets etc are aged somewhere between zero any-kind-of-units and 5 billion years." Space-time has been proposed as infinite - a concept which includes both the numbers 5 billion and 0. So strangely, there really can be zero time between events. What does it mean if there is 0 time between what is observed in the present fraction of a second and the events infinitely distant in the future or past? It must mean everything is occurring at once. We're unaware of practically all of it because human brains reach perspective's vanishing point (a visual example is that of railway lines converging in the distance – a multisensory example may be inability to perceive anything beyond a particular location on a DVD's long spiral track of data). And the scientific instruments/spaceprobes designed by those brains eventually reach their vanishing point too – though science's devices are less limited

since they see further into space and the subatomic world, and they detect in more wavelengths. Even though it might be impossible to sense or detect anything beyond a particular spot on a DVD's track, the entire disk nevertheless exists. A finite DVD is a poor analogy to the infinite universe (where the entirety of space and time exists at once), but the correct change in perspective allows complete information to be obtained from either (to see everything happening at once).

In the case of the DVD, thousands of people could view a different second of the movie. Then a variation of astronomy's interferometry could be used – interferometry is the process of combining the waves detected by multiple instruments (say, radio telescopes) to learn more than a single radio telescope can reveal. The gravitational and electromagnetic waves composing each person's brain are combined so one brain (yours) can access all info on the disk. In the case of the cosmos, everything in space-time could be unified by those waves. Causes and effects would be restricted to communicating at the velocity of light – identical to the velocity of gravitational and other electromagnetic waves – if time only moved forwards ie if only "real" time existed. But time also moves backwards ie "complex" time exists. So waves from a cause can travel back in time to an effect, thus creating its effect instantly in a process called entanglement (entanglement can be quantum or macroscopic). If your brain and body is entangled with all time and all space,^ you'll be able to learn and do things considered impossible. 'Physicists now believe that entanglement between particles exists everywhere, all the time, and have recently found shocking evidence that it affects the wider, "macroscopic" world that we inhabit.' - "The Weirdest Link" (New Scientist, vol. 181, issue 2440 - 27 March 2004, page 32 - online at http://www.biophysica.com/QUANTUM.HTM). Caslav Brukner, working with Vlatko Vedral and two other Imperial College researchers, has uncovered a radical twist. They have shown that moments of time can become entangled too.(http://www.arxiv.org/abs/quant-ph/0402127).

^ In other words - "If the distances between bodies in time is zero, and if the distances between bodies in space is zero" (time and space must have the same property regarding distance if they're permanently linked as space-time). Sharing the same property means the distinction between space and time is eliminated (such deletion is a property of imaginary time). Motion is individual computer images, or the individual frames called cells, being rapidly displayed in order to give the impression of movement. Motion's the same as time since displaying frames in one direction is going forwards in time while displaying in the reverse direction is going back in time. Frames = space and motion = time, so frames in motion = living in science's space-time. Movement builds the separate still images (more precisely, gravitational-electromagnetic holograms) into a universe that's dynamic and flexible, and the hologram known as the brain assembles a picture of that cosmos.

These erroneous results must refer not only to radioactive meteorites but to any form of matter or radiation - including light and all other electromagnetic waves, sonic waves, gravitational waves, CT scans - even blood tests and doses of medicine fail to take into account the gravitational composition of matter or the travel back in time of some of those waves.

What does this mean for scientists and medical doctors? Scientists need to become theoreticians who can see beyond what their eyes reveal. They need to be able to see more than the traditional, accepted frame of reference because all those observations - all those scientific detectors and instruments - simply aren't good enough to give the needed results.

Doctors aren't getting satisfactory results, either. Sure, they can do wondrous treatments and keep disease - even cancer - at bay. But their labs need to differentiate between those "retarded" and "advanced" waves, then apply that difference to their clinical practices, instead of assuming pathology tests reveal everything. The wave-particle duality discovered by physics means that blood tests are just as susceptible to "erroneous results" as X-rays in a CT scan. With the proper results, doctors might well cure or prevent cancers, and eliminate death from any cause.

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