

### **Abstract**

Interactions of bodies of standard matter and souls (or gravitons, as defined in Complete Relativity, theory by the same author) are discussed and hypotheses are presented on incarnation of lifeforms and formation of consciousness, together with evidence for the existence of souls.

Reincarnation and karma are discussed as equivalents to intrinsic energy oscillation (as postulated by Complete Relativity) and law of equal action and reaction (as postulated by Newton and generalized in Complete Relativity), respectively.

Oscillating gravitons are also proposed as a solution to gravitational anomalies.

# Solution to gravitational anomalies: Reincarnation and karma of consciousness

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## 1 Intro

Relative scale invariance of physical laws and relativity in everything (notably in particle/wave duality) enable recognition of principles of reincarnation and karma in laws of energy oscillation and equal action and reaction, respectively.

In Complete Relativity[1] (CR), these are core principles, present on all scales of energy.

Both principles imply a *common denominator* - the existence of a soul, a phenomenon that must be relatively conserved between incarnations. The soul has been defined in CR as a graviton particle and such definition is generally assumed here. Relativity of souls, however, requires different interpretations, and this too will be considered.

The equivalence of souls and gravitons here is the equivalence of [carriers of] forces such as gravity and [carriers of] consciousness. Proposed mechanics of the phenomena can solve seemingly unrelated problems on various scales. Here, solution to gravitational anomalies in galaxies and solutions to the problem of binding and other issues in consciousness will be presented.

## 2 Generalized karma

The law of equal action and reaction (3rd law of motion), devised by Newton, is well known. With Complete Relativity, however, it became obvious the law *needs* generalization.

Reaction cannot be absolutely instantaneous, but it is unavoidable over time, although relativity in interacting bodies is implied too, which generally increases with distance (in time, generally).

With scale invariance/self-similarity of universes (distinct forms of energy in this context), clearly even people must be nothing more but a distinct form

of energy to a particular universe. And that energy, like all energy, must relatively oscillate, fluctuate and obey the principles of action and reaction on that particular scale.

With postulates of CR understood properly, karma and reincarnation are a manifestation of generalized action/reaction and energy oscillation, respectively.

Interaction between two individual life forms can thus be understood as  $n_{th}$  order interaction in CR.

Consider a person A throwing a piece of rock at person B (suppose it's a *4th World War*). The interaction of a rock with person B may be considered as 1st order interaction, with the rock being the force carrier particle.

But interaction between persons A and B is also real, as a 2nd order interaction (certainly, the person B will likely look at it as the 1st order interaction - considering A as the source of force, rather than the rock).

The intrinsic relativity of interaction order requires reaction on every level (order) of interaction over time/space.

Thus, eventually, a similar energy (not, necessarily a rock) will affect person A too in a similar way (how similar? depending on time) - possibly coming from a person relatively equivalent to person B.

Here, one might wonder how variable is relativity here. This should be proportional to distance in time/space between action and reaction. Sometime the rock will be thrown immediately by the very *same* person B, sometimes not.

Note that in CR, everything changes all the time, so, in any case, reaction never comes from absolutely the same body acted upon and never toward the original body that performed the action.

Nor can the reaction be absolutely equal to action - it evolves.

Generally, any distinct lifeform exists on different scales - on some scales relativity will be high, on some low.

In case of soul/body coupling, high relativity may generally exist in acting bodies (although reference frames will exist where these might be interpreted as the same bodies), but not in souls. Thus, it might only seem that *justice* is not preserved, however, if souls are *allowed* to reincarnate - relatively it will be. Absolutely, however, it cannot be - it requires action and reaction to be absolutely simultaneous and absolutely equal, implying they both originate at the same point in space and time (beginning of action = ending of reaction). Achieving the state of absolute *justice* is thus equal to achieving the state of absolute rest, which requires absolute isolation on all scales of energy, which is, absolutely impossible.

With evolution, mechanics of karma will be diverse.

On the abstract level, one might consider that actions and reactions occur between field (action) potentials, which have certain capacity. With actions

performed, capacitors get discharged. Reaction charges them.

As will be shown later, this abstraction has a physical (mental from some reference frames) interpretation in energy capacity of space.

From our reference frame, at discrete vertical energy levels (defined in CR) karma can be considered *elementary*, or most direct (eg. between standard elementary particles like electrons and protons or between large scale particles like stars and planets).

In between these levels both karma and reincarnation evolve (increasing relativity) reaching maximum relativity (eg. complexity and delay of karmic reactions) somewhere in between two discrete vertical energy scales. From that point, mass (energy) of an organism might continue growing (progressively evolving) or start decaying (regressively evolving), however, in both cases, relativity in karma decreases.

However, extreme differences [in evolution of coupling parameters] between souls and bodies (lack of self-similarity mirroring) would introduce problems with coupling. Therefore, this karmic oscillation should be [what is in CR defined as] a *general oscillation* - it is oscillating itself. Thus, even though both souls and bodies evolve at different speeds and get out of phase frequently, the divergence has a maximum and, periodically, evolution of coupling parameters of bodies and souls will be synchronized.

Most likely, divergence is occurring during weak evolution, while synchronization occurs with a pulse of strong (accelerated) evolution - in which, I am convinced, we are now.

In CR, there is no absolute causality - past and future are correlated and effectively attract each other. The reaction *equal* to action can be delayed but can, thus, also be a precursor to action.

In the example above, it is equally valid to say that person B attracted the rock throwing action (or, more precisely, difference of potentials reaching a particular threshold has triggered the action in that direction).

If information is preserved between incarnations, it obviously must be preserved in space, not in standard matter (one forming the bodies).

It should then be valid to assume that entanglement of souls is dependent on preserved information (capacitor states), which will then eventually (in some incarnation) result in entanglement mirroring the original one, hence producing the reaction.

In any universe, everything is remembered on some scale. There is no absolute forgiveness. One might only recognize relative forgiveness in delay of reaction during weak evolution when it might span multiple

incarnations (body generations) of life.

Like everything, actions and reactions are quantized. Reaction to action can be fragmented into multiple quanta of smaller reactions separated in time or space, but opposite is also possible - multiple smaller reactions can fuse into bigger reaction (probability for fusion increases with the number of *pending* reactions).

As hypothesized, during strong evolution, as the local universe (Earth and its space in this context) approaches the point of synchronization between space and time, delays of local karmic reactions should become shorter - with less relativity even in interacting bodies. Apparently, this can already be witnessed[2] in general precursors[3].

In CR, generally, time is considered a subspace of *ordinary* space, or space of smaller scale. Synchronization of space and time in this context is effectively synchronization between bodies and souls.

## 2.1 Current state of karma on Earth

Most human organizations and individuals around the world are more or less polarized[4]. There is a lot of delay and polarization in karmic reactions between groups of people, but most delayed is the karmic reaction to abuse of Earth and its natural systems by human ego-systems.

It is, however, evident that we are accelerating toward another equilibrium state - karmic reactions are happening already and increasing in intensity. One can also see that reactions are fusing through positive feedback mechanisms. The acceleration is accelerating.

A good example of fused reactions is a devastating earthquake during the rise of COVID-19 pandemic in the capitol city of Croatia. While humans might consider them as problems and label as catastrophes - viruses, floods and earthquakes are not the problem, certainly not coincidences, for Earth and all life of Earth (including human!) these are the solution to restoration of balance. Someone else is the problem, and as long as this problem does not identify itself as a problem the problem will get bigger and the solution more extreme (reaction of Earth's immune system to human action).

### 3 Incarnation hypothesis

Incarnation of an individual always includes a body of matter and associated space (*sphere of influence*) rooted in a soul. Both, body and soul, contain genetic code [equivalents], but these are correlated and both co-evolve in effective symbiosis.

Since all lifeforms should have a soul and since embryonic development and growth of new life is lossy compressed evolution of the species, *binding* or coupling of a soul and a body must begin no later than the moment of conception (I assume relativity in synchronization is low). Thus, it's generally appropriate to consider that moment as the beginning of a new incarnation. As the body develops, the soul too is *decompressing*. It is fragmenting into souls of individual cells and proteins (it is initially a superposition of souls) but never completely (how much, depends on species). All these souls are periodically inflating and *orbit* around the initial soul (this will be related to formation of consciousness later), however, during the process, as bigger cells (ie. organs) are created these become intermediate *orbital* centres. The souls of cells periodically *orbit* souls of fully formed organs, while organ souls periodically *orbit* the initial (primary) soul.

The meaning of "orbit" here will depend on interpretation. While the effect may be equal to regular orbits (eg. planets revolving around the star), the exact mechanism might be different.

For example, if a graviton forms a ring, or a relatively 2-dimensional sphere surface, rotating around the mass barycentre, the "orbit" or orbital angular momentum might not be the appropriate term, rather "spin" or spin momentum (note that, if there are inner gravitons too, all are also in a superposition from some reference frames).

However, spin momentum must be, in CR, composed of individual smaller momenta, making it [entangled with] the sum of orbital angular momenta. Also, gravitons can collapse to form a localized spin momentum that now has an orbital angular momentum (conserving the orbital radius in the process, when stimulated by low energy phenomena).

Before the collapse, in some reference frames, the state of the graviton can be interpreted as wavelike and described by a quantum wavefunction, while after the collapse it becomes a well defined or localized state (eg. eigenstate of position).

But from some reference frames (eg. involving frequency), the two interpretations might be equal.

Note also, that discreteness of transition between the states will also depend on a reference frame, therefore, one or more intermediate states might exist (eg. pilot waves) *somewhere* or *sometime*.

Eventually, the primary soul ends up in the centre of the head.

As will be discussed later, local souls (forming Earth's space) initially likely started binding with atoms or their nuclei so all Earth's atoms should *have* souls too. The soul binding with the body at conception should then, initially, be periodically in a superposition with inflated atomic souls.

Souls are thus everywhere, however, amount of consciousness [on particular scale] differs between the couplings.

With the inflation and deflation of souls information is transferred between the souls and physical components of the body. Souls do not only process inputs but can mentally affect physical processes in the body[5]. The effect might be negligible in the beginning (the salient purpose of communication might be synchronization of development), but with increasing amount of consciousness of a particular soul (which is correlated with number of souls that are periodically in orbit) the power and *sphere of influence* of that soul grows.

However, whatever the soul will eventually want, there is no guarantee that its message won't be ignored (and vice versa - how often do we ignore the signals of our bodies?).

Incarnation ends with the moment of death. Death is, like birth, relative. As organs fail, their souls return to couple with the primary soul which then starts orbiting the Earth's soul (large scale graviton) as part of its space (gravity carrier particle, or dark matter particle in some interpretations). It orbits at, or close to, the standard speed of light ( $c$ ) before it is coupled with another body when it is localized (deflated) again, with mass/speed adjusted to conserve the momentum.

Obviously, evolution here and number of living beings is constrained by the number of available, or free, gravitons. At full capacity, increasing population of one species will be simultaneous with a decrease in population of other species (implying inter-species soul oscillation).

### 3.1 Solution to gravitational anomalies

Orbiting souls (gravitons) forming space also explain anomalies in angular momenta of matter in galaxies. Nearly flat velocity curves of outer rims and structure (spiral arms) of common galaxies indicate that angular velocity of souls doesn't change much with orbital radius but their density is generally decreasing with distance (as predicted by CR).

Do anomalous increases in velocity of stars (typically in outer rims) indicate increases in density of orbiting souls or that the ratio of mass of uncoupled souls to standard matter is greater than 1 (in which case uncoupled souls are

effectively dragging already coupled matter, instead of being slowed down by longer-lived coupling).

I propose the latter - conventional laws of gravity incorrectly effectively assume capacity for body-soul coupling is always full.

Maximal orbital velocity should be equal to angular velocity of space-forming gravitons (souls), it converges then to Keplerian velocity with increasing soul-body coupling.

Decreasing orbital velocity with distance that follows Kepler's orbital law will then indicate space at full capacity.

Suppose the equation of state is as follows:

$$GM \frac{m_s}{v_s} = m v r \quad (1.1)$$

G = gravitational constant

M = mass enclosed within radius r

where the right side is orbital angular momentum of matter, while  $m_s$  and  $v_s$  are total mass and average orbital velocity of gravitons forming the toroidal quantum of space which that matter is traversing, respectively.

The sum (relative superposition) of gravitons [of  $U_{-1}$  scale] here act as effective large graviton [of  $U_1$  scale] with mass  $m_s$  and orbital velocity  $v_s$  [for a definition of  $U_n$  scales, see CR: Definitions -> Universe (U) -> Charge and scale of a universe].

At equilibrium in full capacity states, effective graviton has Keplerian velocity and Keplerian mass.

This has 2 interpretations for masses of standard matter that one measures:

- measured mass is either the sum of masses of standard matter and bound gravitons (in some interpretations graviton here is providing mass for matter), or
- one mass is shielding the other (measured mass is then half the total mass).

gravitons can be of different species with different masses (depending on polarization of space) - either *static dark photons* or *static* neutrinos (see CR for definition of *static* particles). There are also different generations of particles within species so total mass  $m_s$  of the effective graviton should generally differ between different galaxies.

Recent analysis of galaxies in SPARC (Spitzer Photometry and Accurate Rotation Curves) database confirms that dark matter particles must have different masses to fit the observation[6] - for a Fuzzy cold dark matter model (which gives the best results of all dark matter models).

The model here is, however, different - dark matter particles are initially *hot*, then transform to *cold* Keplerian momenta through interaction with



standard matter.

From (1.1), orbital velocity of matter is:

$$v = GM \frac{m_s}{m} \frac{1}{v_s r}$$

$m > 0$

Note that  $v$  and  $v_s$  are generally vectors, while here it is assumed that angle between  $v$  and  $v_s$  is 0. This should be fulfilled in equilibrium but might not be fulfilled otherwise and should be taken into account (probability for greater angles might generally grow with  $r$ ).  
Note also that zero in condition  $m > 0$  is a relative zero and should be interpreted as equal to the mass of [uncoupled] space-forming graviton particle ( $dm_s$ ).

At full capacity,  $m_s = m$ ,  $v_s = v$  and velocity becomes Keplerian:

$$v^2 = \frac{GM}{r}$$

For  $m < m_s$  velocity increases, at  $m \ll m_s$ ,  $v \approx v_s \approx c$ .

For  $m > m_s$  velocity becomes lower than Keplerian, acting forces are no longer in balance, inertia is disturbed and orbital radius decreases - all the way to relative 0 if everything *below* the original orbit is at full capacity (and if not stopped by accumulated orbiting mass - eg. satellites falling back to Earth are stopped at surface radius).

Note that gravitons coupled with *infalling* matter will decouple at some point [and return to original orbit]. All couplings have a finite average lifespan, which can also be disturbed in certain conditions.

With such mechanism, it should be common for inner orbits to be at full capacity (or over-capacitated near the centre), with probability for under-capacitation increasing with orbital distance.

Under-capacitation explains higher velocities in outer parts of galaxies, while nearly flat velocity curves could indicate that  $\frac{m_s}{m} \propto r$  (free capacity growing with  $r$ ), rather than anomalous density of dark matter.

Similarly,  $M \frac{m_s}{m} \propto r^2$  would give linear increase of velocity with distance, solving the core/cusp problem[7] (solid-body behaviour in galactic cores). However, different generations or species of space-forming particles (*static* gravitons) with different rest masses exist and therefore different ranges may be present in a system. And that is likely the cause of different proportionality with distance. The number of species present may differ between systems (galaxies, planetary systems, ...) and even steeper velocity curves may exist near the core. Generally, thus, velocities will be proportional to  $r^n$  where maximal  $n$  is proportional to number of species and is decreasing with distance from the core.

Energy accumulating in the centre will, however, generally be radiated or expelled outwards through various mechanisms.

In my hypotheses, planetary systems are quantum systems too. Planets have been formed by the collapse of large scale gravitons (rotating and probably encircling the current star) into gravitons of planetary scale (orbiting around the star). This was relatively synchronized with *acquisition* of standard matter. Note that this collapse is a physical manifestation of a collapse (or reduction) of a quantum wavefunction. Here, interaction of a graviton with standard matter might be interpreted as the act of *observation* (or *measurement*). In CR, general physics itself reduces (degenerates) to quantum physics by disallowing relativity in speed of information transfer (causality) and in resolution of space/time (eg. reducing relatively elementary particles with real radius to abstract point particles).

### 3.1.1 Oscillation and time-dilation of anomalies

Time flows differently at different scales if metric is not appropriately scaled. Since observers generally do not and generally cannot physically scale the energy used for observation, scaling of metric in interpretation of observables, if used, is generally a mathematical abstraction. It should then be common for smaller systems to be physically observed at full capacity or over-capacitated, with probability for under-capacitation growing with energy magnitude due to dilation of time.

Note that we generally use *scale-invariant* photons for observations of phenomena regardless of their scale.

Observations confirm this hypothesis - planetary systems generally do not show anomalous orbital velocities, and galaxies observed with *no dark matter present* are indeed smaller [dwarf] galaxies[8].

This might suggest that given enough time, unfilled capacity will be filled, however, if most energy is acquired with inflation, this might not be the case and may indicate lack of real mass for coupling.

Note that non-existence of anomalous velocities does not indicate there is no dark matter. By the hypothesis on total mass, at least some of the total mass at full capacity should be graviton (dark matter) mass. If gravitational well is under-capacitated it lacks standard (real) matter compared to dark matter, while in over-capacitated wells (like the Solar System) there is excess real gravitational mass. In over-capacitated wells, deviation from Keplerian velocities is most likely near the centre (but not at the centre where high angular momenta of gravitons prevents accumulation) where angular momenta has been converted to momenta with significant radial component (eg. thermal momenta). Therefore, dwarf galaxies with *no dark matter* are not, in reality, devoid of dark matter, rather devoid of anomalous momenta, where some of the energy is incorrectly attributed to real mass (ordinary matter). In other words, energy of ordinary matter, ordinarily has a dark matter component.

In CR, mass cannot be constant either. Thus, systems should oscillate in energy and if oscillation in real (coupled) mass is not synchronized with oscillation of img (graviton) mass (in CR, it cannot be absolutely synchronized) dark matter may remain apparently constant. However, even in that case, if the ratio of real mass to dark mass is high, the dark component may be undetectable.

### 3.2 Two components of a lifeform

In terms of body-soul interactions, lifeforms may be modelled by two components - real and imaginary (img).

Here, img component represents the gravitational maximum (primary soul) while real component is the *induced* maximum of coupled body of matter.

Real component will thus develop according to the code inherited from body ancestors (eg. DNA), while img component develops with execution of genetic code [equivalent] of the soul.

However, as these components co-evolve, one will effectively (directly or indirectly) induce mutations (generally less likely) and epigenetic changes (more likely) in the other.

During lifetime of an individual, one of these may be dominant and other recessive in driving the evolution and expression of the individual, but, at any time, personality is a superposition of both. Generally, the expression of these will alternate during lifetime, resulting in significant personality changes although certain characteristics will always be preserved.

One will thus have periods in life when it will be expressing behaviour of its body ancestors (parents, grandparents, etc.), but also periods when it will be expressing behaviour of its soul ancestors, which are always different than the body ancestors and are not necessarily of the same species (although local interpretation can affect expression, eg. human interpretation of barking, howling or mating rituals is usually different than that of canine species).

If large difference exists between soul personality and body personality, time in between will likely be experienced as a period of crisis - when the individual will be most insecure, questioning its own identity and be most prone to depression.

The oscillation is illustrated in Fig. 1. Here, one can assume that the amount of consciousness is growing with the amount (A) of expression of soul personality. Periodic moments (at 10y intervals in Fig. 1) of 0 expression (and 0 amount of consciousness, lasting 0 time) should be understood as mid-points (discontinuities) of *cataclysmic* changes in personality (eg. puberty, transformation of consciousness) or epigenome. In reality, periodicity of these might not be so regular, their number will differ between species and even between individuals within the species (mostly between neutral and polarized sub-species), as well as the magnitude of effect.

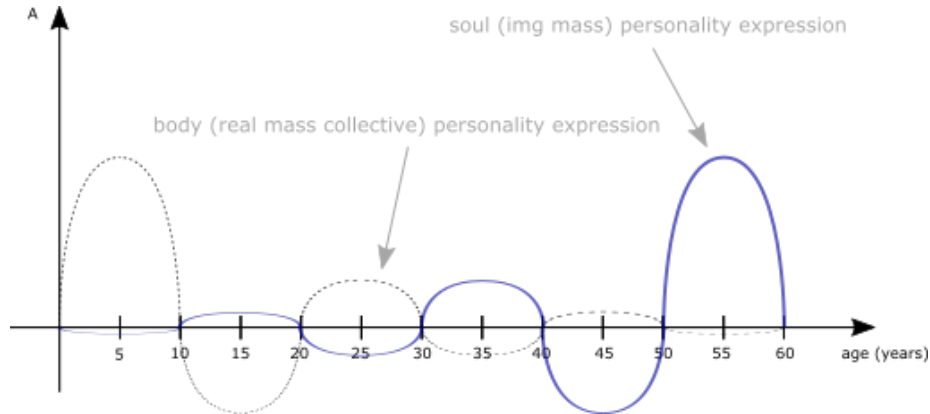


Figure 1: Personality oscillation

Note that expression is polarized. However, amount of polarization is generally not proportional to the amount of expression. Also, polarization is subdued for neutral sub-species.

At some scale, this polarization is electro-magnetic. I hypothesize that polarized lifeforms, for example, have *dark* [half-]photon souls while neutral lifeforms have graviton neutrino souls, or more likely, everyone has both but one dominates.

This is then reflected in mentality, as I have described elsewhere[4].

The end of incarnation lifetime is the moment of death, when soul decouples from the body of matter. At that point, real component is fragmented/dissolves into individual components of higher orders.

Per my hypotheses, weak (slow and gradual) evolution is punctuated by periods (pulses) of strong (accelerated) evolution. I also hypothesize that, at times of strong evolution, bodies and souls are being increasingly synchronized and this is reflected in the body as strong mutations (manifested with horizontal gene transfer).

Note that body personality here is effective personality - ecosystem of a body might behave as a single body but on its own it is not a conscious individual.

Effective body personality could be understood as personality of an effective (but not real) additional soul. However, it cannot be excluded that primary soul does consist of 2 or more real souls where personality of one of those [better] matches those of body ancestors (eg. parents). In that case, our consciousness may not be subdued when personality of that soul is expressed.

However, souls are generally oscillating in mass (energy) between discrete energy levels (discontinuities). One could model the primary soul with two souls, but in reality it is more likely that changes in personality are correlated with energy levels (higher energy levels should also include depolarization - exchange of electro-magnetic potential for neutral gravitational potential, explaining transformation of consciousness).

Frequency of this oscillation is high when the soul is not coupled with a body, however, with coupling the oscillation can be extremely slowed down.

A change of energy level can be unstable and lead to complete collapse of the soul (death) - all death events occur with instability on one of the discontinuities.

For us, these are discontinuities in time and they also oscillate and evolve between incarnations (reflected in lifestyle), but weakly - uncertainty in

age should generally be 1-2 years for mammals on Earth.

In my example, I hypothesize that two major discontinuities are located at 35 and 50 years of lifespan.

If I do not die around the age of 35 (I didn't, in current incarnation), I will probably live up to the age of 50 [ $\pm$ uncertainty], but I'm unlikely to die at the age of 50 because the collapsing soul has to *stop* at the 35y discontinuity (unless it becomes unstable, but this is less likely), extending life for another 35 years - giving a total lifespan of 85 years [ $\pm$ uncertainty].

Magnitude and nature of changes one will experience during energy level changes, depends on the individual.

In my case, starting at the age of 35 (with a maximum possibly at age 36) I was experiencing very strong changes - overwhelming synchronicity and mental transformation (loss of polarization).

Something similar but of different magnitude should thus be happening to me around the age of 50.

There are also minor discontinuities but these are generally stable during growth (*inflation*) of a lifeform, unstable during decay (*deflation*).

While my major discontinuities may be at 35 and 50 years, on average these are different, possibly at 13 and 60 years (globally, average lifespan was 73 years in 2019.). Interestingly, 60 years has indeed been found (along with 44) to be the age about which major changes occur in bodies of people in US on average[9], and 13 years is the average age of puberty in people. Note that the average of 13 and 73 is 43, very close to 44. This suggests that, globally, transformational age may be 43, rather than 44, as it is in US (where 44 is the average of lifespan and puberty).

The stability of coupling of bodies and souls will depend on compatibility. Having a major discontinuity at 35 years, coupling of my soul with canine species will be unstable and short-lived, while for general population this coupling will be more stable and even long-lived if indeed the first major discontinuity is roughly equal to canine lifespan.

In case of low compatibility, major discontinuities may be unreachable, while minor might become major discontinuities (implying the existence of even lower energy discontinuities than minor).

Note also that lifespan is changing for general (polarized) population (it was increasing so far, but it is likely to start decreasing now).

I believe that most of population is polarized and thus has *dark* photon souls. While I believe *dark* photon souls of Earth should be generally evolving into (more massive) neutrino souls, temporary increase in polarization probably should be expected during strong evolution events.

### 3.3 Lifespan of general population

In the previous chapter two discontinuities of the soul have been hypothesized that determine the lifespan of general population (those with *dark* [half-]photon souls).

While photon as a whole is electrically neutral, its two constituent quanta are charged and even though these charges may be low (most energy being gravitational) they will be sensitive to certain frequencies of electro-magnetic radiation of some scale.

I have hypothesized elsewhere that photon is a composite particle - in CR, no particle can be absolutely elementary (at some scale it must be interpreted as composite), and there are no absolute bosons and fermions, only relative.

Note that, once coupled with a body, change in momenta likely results in decrease of angular frequency, while oscillation of mass could produce orbitals and result in shielding, making one charge dominant (reflected in personality expression).

For *dark* photon (or *dark* half-photon) souls it would be natural that these are sensitive to Earth's magnetic field to some degree.

Note that correlation between [changes in] Earth's magnetic field and human health has been found in multiple studies[10].

At some field strength or at some scale of the field, splitting of energy levels (discontinuities) should occur and the magnetic field should be correlated with lifespan.

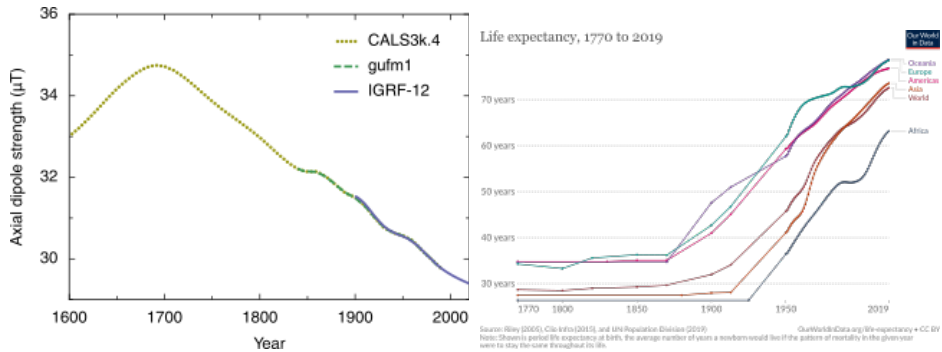


Figure 2: left) geomagnetic axial dipole strength<sup>11</sup>, right) life expectancy<sup>12</sup>

The strength of Earth's geomagnetic axial dipole and life expectancy over time are shown in Fig. 2.

In Fig. 3, magnetic field data from 1840 to 2020 has been inverted (flipped vertically) and vertically stretched to fit life expectancy data (although in this case rotation gives a better fit).

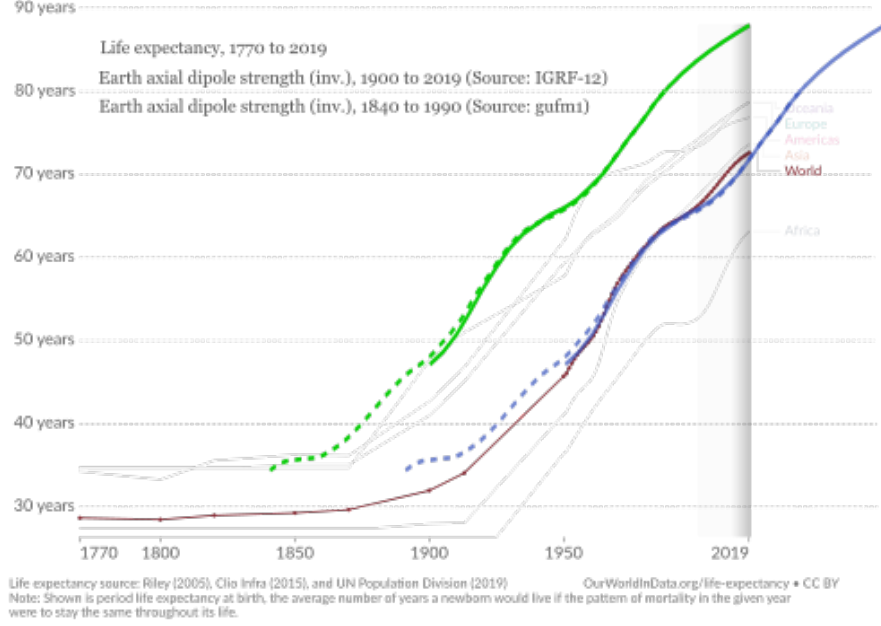


Figure 3: Life expectancy / mf correlation

The red curve shows global life expectancy, green the inverse of magnetic field strength while blue is the same but phase shifted by 50 years.

Obviously, there is a strong correlation with IGRF-12 model in the period 1950 - 2000.

Interestingly, 50 years is not only the phase shift and length of period of strong correlation, it is also the arithmetic average lifespan in Fig. 3. [calculated as (min. lifespan + max. lifespan) / 2] and, what I consider, average human lifespan over the course of evolution.

Mathematically, correlated lifespan (blue curve), assuming increasing divergence between mf and lifespan over time, can be expressed as:

$$\Delta T = [C_0 - B(t - t_0)] C_1 + C_2(t - t_1)$$

$$\Delta T = \text{expected lifespan}$$



B = magnetic field strength  
 $t_0$  = phase shift = 50 years  
 $t_1$  = year of divergence = 1840 + 50 = 1890

Note that data for life expectancy before year 1950 is scarce and the curve is the result of interpolation between distant points.  
 Also, data for recent years (shaded area) is speculative (most people born during the period are still alive) and is likely to change, so it might better align with the mf in the end.  
 Note also that polarization of people changes over evolution. The strong alignment with the magnetic field strength is expected only in people with highly polarized souls (or, in another interpretation, when polarized component of the soul dominates).

From available data one can extrapolate possible discontinuities and their stability over time.

From 1770 to  $\approx 1900$ , average lifespan was  $27 \pm 1$  or  $35 \pm 1$ , depending on continent. This can be represented by two energy levels -  $E_{13}$  (maximum lifetime of 13 y) and  $E_{22}$  (maximum lifetime of 22 y), as shown on Fig. 4.

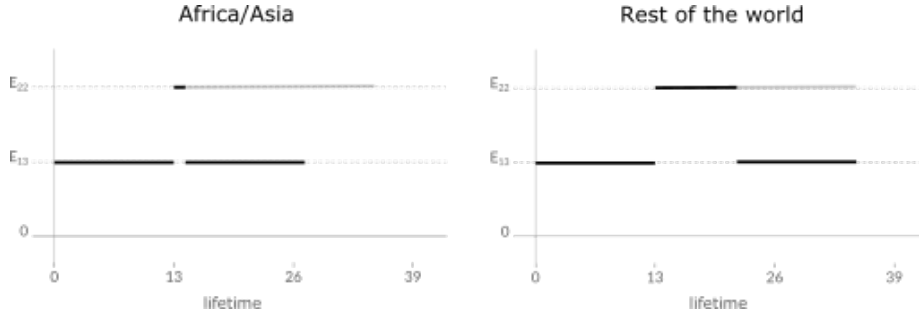


Figure 4: Lifespan correlated energy levels

Here, energy levels should be understood as orbital periods. Due to general oscillation, periods (lifetimes) on a particular energy level are quantized by [more] elementary periods.  
 Note that each level has maximum capacity and lifespan is a sum of lifetimes spent on each level.  
 The two levels are likely the result of splitting of a 19 y period level ( $E_{19}$ ). Initially the two levels were roughly the same, but one was unstable giving a maximum lifespan of 38 years (this is consistent with DNA records[13]).

The splitting is not symmetric as both levels are orbitals of the same gravity source. Thus, the former  $E_{19}$  level period is at  $2/3$  the distance between  $E_{13}$  and  $E_{22}$  periods.

Evolution of these energy levels should probably be correlated with evolution of inner planets. Here, splitting of energy levels should be correlated with [breaking of] orbital resonances.

Note that difference in orbital period at Earth's distance from the Sun and Mars' perihelion distance is equal to orbital period of Venus. This probably indicates that Venus and Mars were in resonance (1:2) at time Earth was created, implying that Earth was created at Venus' orbit (or out of Venus) and then started drifting away. Mars, entangled with Earth, drifted away for the same distance leaving original entanglement with Venus fossilized in perihelion (relative to Earth).

But from the Sun's reference frame, it was likely that Venus separated more from Earth/Mars than these drifted away from the Sun.

Note that orbital period at Mars' perihelion is roughly at  $2/3$  the distance between Earth's orbital period and current Mars' orbital period.

The energy level  $E_{22}$  was unstable in Africa and Asia and remained as such until  $\approx 1925$ . The two levels give maximum lifespan of  $2 \cdot 13 + 22 = 48$  years. Thus, at some point one or both levels had to split, and/or the oscillation was excited and a *higher* level became available, to enable larger lifespans.

Note that splitting of energy levels is generally associated with increasing magnetic field strength, not decreasing. Thus, it might seem that, if any splitting occurs here it is not directly caused by changes in the global magnetic field rather indirectly. However, photon is likely sensitive to a component of the field of smaller scale, which might be increasing in strength currently (will be elaborated later).

Continuous increase in orbits (orbital periods) can be a direct consequence of a global decrease in magnetic field strength - assuming that half-photon (soul) quanta gyrate around magnetic field lines of the global field (at least when naked).

The phase shift of 50 years should probably be interpreted as the time required for these changes to be incorporated into body DNA and reflected in its epigenome. It is thus the phase shift between the soul and the body.

Lifespan (expected) is DNA coded and, theoretically, one should not only be able to derive lifespan from DNA, but by comparison of encoded lifespan with encoded lifespans in past generations (adjusted for its periodic variation per Fig. 3) and by matching other DNA characteristics, one should be able to find its past incarnations or at least potential candi-

dates (though, for relevant certainty one will probably need to compare the personal lives of individuals).

Typically, in polarized human society, increase in lifespan is credited to humans - *improvements* in medical care, diets, lifestyle, etc.

However, these changes are likely only synchronized with increase in lifespan and cannot affect lifespan significantly - maximum effect is probably the deviation in lifespan oscillation between incarnations (a couple of years at most). In other words, changes in lifestyle may increase probability for one to reach the coded maximum age, but the coded age changes independently.

Consider vaccination - it is commonly believed it saves human lives, but the need for this saving is the result of cancerous nature, does it then increase human lifespan or is it just a way to sustain it in societies that live separate from nature but commonly invade it (and pick up viruses when they do so)?

Isolated tribes might live shorter than civilized society but generally not by decades and probably not because they lack medicine - they die because they are less and less isolated from polarized people, these introduce their diseases to them, decrease their freedom, are killing them and decreasing their gene pool.

Their souls may be coded to live just as long as ours, but their bodies just can't adapt fast enough to such invasion. On top of that, they might not be so obsessed about living into old age as *zombies* on drugs so they refuse western *medicine*. In any case, even if maximum possible lifespan continues increasing (as suggested by Fig. 3), I do not expect for the average lifespan to follow - karmic reactions should be affecting souls and bodies at an accelerating pace during strong evolution.

If average human will be converging to homo.gamma (typically, a superposition of human and canine life forms), as I hypothesize[4], the average lifespan should be decreasing and will probably stabilize somewhere in the middle, perhaps at 50 years (eg. arithmetic average of soul lifespans of 13 and 87 years), or, more likely, at 43 (13 and 73 average) or 44 in US (as noted, 44 years has been found to be a transformational year in US for people on average).

### 3.4 Coupling and genetic mutations

Genetic mutations are not absolutely random. Incompatibilities between the soul and a body might be associated with such mutations. For instance, a dominantly *male* soul coupled with a female body might *make* the individual homosexual and some clues might be imprinted in the genetic code of the body (although, synchronicity might apply here, making cause and effect relative).

Note 1:

With population increase there is a greater chance for coupling of bodies of one sex with a soul of another sex (commonly interpreted as gender). This is one way to limit the population in order to maintain natural balance, but is also one of the ways to maintain the number of individuals required for hypothesized planetary neurogenesis[14].

Per the hypothesis, surface population size at times of major extinctions should not be random - it corresponds to number of neural cells/proteins which will be differentiated from surface cells/proteins and incorporated into mantle layers.

Note 2:

Genetic imprints associated with homosexuality might also be present in heterosexuals where they will induce stronger sexual desire which can result in population increase, but this also increases probability of homosexual descendants due to inherited genes.

Note 3:

No soul or body is 100% male or 100% female and thus no individual is 100% male or 100% female. Since every organ in the body may be interpreted as an organism in a perpetual state of hibernation, every organ may be interpreted as either male or female. Sex may be defined by the sex of a reproductive organ, however, gender will depend on the sex of the brain [soul]. In homosexual male individuals, for example, brain tends to function like a brain of opposite sex. This can either be due to a female brain or its female soul. In case of the former, homosexuality is the result of a real component (body) of the brain and will get subdued with age if the soul is male. However, if the soul is female while the brain is male, homosexuality will grow with age.

Incompatible couplings and genetic mutations are often a manifestation of karmic reactions, causing disorders and diseases.

### 3.5 Soul order

There exists a certain hierarchy between souls in a system, or soul order.

A 1st order soul is the primary or root soul, one that couples with matter at time of conception and later forms consciousness of the individual.

However, as particles (life forms) of a body of matter are also mutually in symbiosis, bodies of matter will be [unconsciously] coupling to, and co-evolve with, their own souls (particles -> molecules/microorgan[ism]s -> organs..).

Souls of organs can be considered as secondary souls. However, these couplings are not limited to two or three orders, although, effectively, they will be - eg. 1st order soul might not feel directly influenced by souls of the 4th order

and beyond.

Note that, before coupling and if not in superposition, 2nd order souls generally revolve around the 1st order soul, 3rd order souls revolve around 2nd order souls (as in planetary systems), etc.

However, it is possible that even coupled souls still periodically revolve around the primary soul or are only periodically coupling with organs (which may be more likely, if these organs are in state of hibernation).

Note that coupling and decoupling of souls and bodies involves changes in the components of soul momentum. This is why the soul can traverse the body of matter unaffected during orbit. Coupling is likely synchronized with oscillation of soul mass and involves time dilation.

Consider the heart - suppose it is pulsing at 76 bpm (beats per minute), this would imply an 2nd order soul is coupling and decoupling (through spin change) with the heart 76 times in every minute.

This should then be interpreted as periodic loss of consciousness of the heart, but one which doesn't have strong influence on the system - it has evolved to live synchronized with such pulsing of the heart.

Assuming organ mass is proportional to soul mass, this gives another interpretation for the increase in probability of heart failure with obesity. If an organ next to the heart is concentrating mass while the brain is decreasing mass[15] (and this is reflected in their souls' energy levels), this will affect the orbit of the heart's soul and may even cause the heart's soul to orbit a soul of a nearby organ (perhaps periodically at the beginning, not causing death) or get ejected out of the system - causing system imbalance and a change of momentum of other souls, leading to death.

Note that this implies that heart should generally beat at a faster rate when closer to the primary soul (for the same species of souls, and assuming that semi-major axis is smaller).

Note also that, while soul mass may be proportional to organ mass, different organs are different species and have souls with different rest and/or effective masses. Human liver is more massive than the brain, however, its consciousness is much lower and effective mass of the brain's soul should be much higher than that of the liver.

If soul orbits follow gravitational orbital law, one can establish a relation between heart/brain distance, heart rate and soul gravitational mass. For precise results, one needs to know where exactly the heart's [primary] soul is. Most likely it is not in the centre of a heart, rather in the sinoatrial node - where heart impulse starts. Generally, oscillation of coupled souls is oscillation between horizontal energy levels. However,

souls also generally oscillate between different discrete vertical energy levels. Therefore, the same soul can couple with body species of different magnitude.

Eg. assuming difference in vertical energy level is equal to difference in body mass, a soul may be oscillating between human and blue whale (*B. musculus*) body species.

In that case, stronger correlation should exist between organs in these bodies (orbital distances of souls may be simply scaled up/down).

Knowing the distance ( $r$ ) from primary soul location (presumably brain centre) and heart soul location for both species, and knowing human rest heart rate ( $f_h$ ), one can calculate rest heart rate of a blue whale ( $f_w$ ) oscillation *soul mate*:

$$f = \frac{1}{T} = \frac{v}{2\pi r} = \frac{\sqrt{GM}}{2\pi\sqrt{r}r}$$

For human:

$$\sqrt{GM} = f_h * 2\pi\sqrt{r_h}r_h$$

$r_h$  = distance between human brain centre and the heart

Assuming the equivalence of souls is the equivalence of GM products, the heart rate of a whale is then:

$$f_w = \frac{\sqrt{GM}}{2\pi\sqrt{r_w}r_w} = f_h \frac{\sqrt{r_h}r_h}{\sqrt{r_w}r_w}$$

$r_w$  = distance between whale primary soul centre and heart soul centre

For an adult  $f_h = 76 \text{ bpm} = 1.2666' \text{ Hz}$  (my rest heart rate),  $r_h = 0.34 \text{ m}$  and assuming  $r_w = 2 \text{ m}$ :

$$f_w = 5.33 \text{ bpm}$$

From the above, one can also obtain the GM product for such soul.

Obviously, this GM product has no [physical] meaning in space  $U_0$  (for standard  $G = G_0$ , it gives mass  $4 * 10^{10} \text{ kg}$ , equal to the mass of the 99942 Apophis asteroid). One tempting explanation is scale difference - the force (or curvature of space) associated with this product only affects particles of  $U_{-1}$  scale (souls) because gravitons forming soul space are of  $U_{-3}$  scale (on this scale, the gravitational constant  $G$  should be different too, according to CR).

However, original assumption of Keplerian velocities is invalid - souls are *static* particles which do not follow Kepler's law when uncoupled - they have fixed orbital velocity (independent of  $r$ ). Proper equation is then:

$$f_w = f_h \frac{r_h}{r_w} = 13 \text{ bpm} \quad (1.2)$$

This is in agreement with measurements - heart rates during shallow, short-duration dives typically associated with rest have been measured to be 13 bpm (for a  $\approx 70000$  kg, 23 m long blue whale)[16].

However, I did not find any reliable data on brain/heart distance for blue whales -  $r_w$  is an estimate I came up by consulting various literature, and  $r_h$  is an estimate based on my own measurements, so ratio between  $r_h$  and  $r_w$  could be somewhat different, although not much.

Note that, once coupled with the heart, Kepler's law could give roughly good GM - as the soul's orbital momentum is a relative 0.

Suppose that the soul is orbiting at the standard *speed of light* ( $c$ ) and that, once coupled with a heart, the soul's orbital speed is reduced to a small (relatively infinitesimal) but not absolute 0 value. The heart rate is then determined from two periods:

$$f = \frac{1}{T_1 + T_2}$$

where  $T_1$  is the period the orbit is traversed uncoupled and  $T_2$  the period the orbit is traversed coupled.

$$\frac{1}{f} = T = T_1 + T_2 = \frac{2\pi r - x}{c} + \frac{x}{v}$$

$$\frac{c - f(2\pi r - x)}{fc} = \frac{x}{v}$$

$$v = \frac{x}{c - f(2\pi r - x)}fc = \sqrt{\frac{GM}{r}}$$

$$M = \frac{1}{G} \left( \frac{x}{c - f(2\pi r - x)}fc \right)^2 r \approx \frac{1}{G} (xf)^2 r$$

$x$  = path traversed during period  $T_2$

$v$  = average velocity during period  $T_2$

For  $x = 84$  mm = 0.084 m (approximately heart width),  $G = 6.674 * 10^{-11}$  m<sup>3</sup>kg<sup>-1</sup>s<sup>-2</sup>,  $f = 76/60$  Hz,  $r = 0.34$  m and  $c = 2.99792458 * 10^8$  m/s:

$$M = 57.67 * 10^6 \text{ kg}$$

Obviously, the assumed *coupling* path ( $x$ ) is too large (at least for non-scaled  $G$ ) or the coupling force is not [purely] gravitational.

Two questions here arise:

- why is the soul coupling with the heart periodically and not to something else,
- why does it orbit the primary soul, not something else?

It was hypothesized that the probability for coupling of souls and bodies is initially proportional to genetic match. However, assuming every cell contains the same genetic code why would the soul couple with the heart [cells] in a developed organism? Obviously, either genetic code differs somewhat between the organs (which has been proven to be the case[17] - differences increase with age) or it is the expressed genes and different form of organs that matter (could imply that the soul too is transforming with body development).

In any case, co-evolution should be the answer to the question of *why*, although it does not provide the answer to *how*. Some effective attraction must exist - which may be the effective attraction between past and future.

Physical manifestation of coupling must be synchronized with oscillation of soul mass and, thus, periodic switch of context - the soul alternates in entanglement between the current and previous incarnation. Assuming the heart is an organism in hibernation and its soul was previously coupled to the brain or it was in superposition with primary soul this should not be surprising.

Coupling with the heart in one interpretation is thus instability of quantum superposition - periodic collapse to the most probable eigenstate.

In another interpretation, the strength of attraction between souls is inversely proportional to distance in [evolved] time.

If the distance  $r$  is interpreted as the effective range of the heart's soul, while its orbital path is equal to Compton wavelength, for  $r = 0.34$  m, its mass is:

$$M_p = \frac{\hbar}{\lambda_r c} = \frac{\hbar}{rc} = 1.03 * 10^{-42} \text{ kg}$$

$$\hbar = 1.054573 * 10^{-34} \text{ Js} = \text{reduced Planck's constant}$$

$$c = 2.99792458 * 10^8 \text{ m/s} = \text{speed limit of space}$$

$$\lambda_r = \text{reduced Compton wavelength}$$

Such small range explains why the obtained GM product is meaningless, the heart's soul is not a carrier particle of conventional gravitational force (with unlimited range), the force is limited, just like the strong nuclear force.

Note that, if the heart's soul has exchanged velocity ( $c$ ) with mass to conserve momentum, its original mass is:

$$M_{p0} \approx \frac{M_p}{c} = 3.44 * 10^{-51} \text{ kg}$$

Coupling of a soul with a body can be interpreted as localization of force. Forces, as particles, evolve. Development of an organism from conception is coded evolution of particles and forces, why should we assume that this evolution starts with a *couple* of molecules and chemical force, or why should we assume that coupling exists on one scale only?



If universes are self-similar, and there is inflation of mass, there is inflation of coupling.

However, it is not necessary for heart's soul itself to be orbiting, a smaller soul quantum (which is, essentially, a quantum of momentum or kinetic energy) might instead be orbiting the primary soul and be periodically absorbed by the heart's soul (relatively equivalent to the photon momentum absorption by an atomic electron) - in that case heart's soul only periodically changes its energy level.

Changes in energy levels are always synchronized with absorption/emission of energy of some smaller scale. Since genetic code has a lot of similarity between near ancestors and descendants, death of a near ancestor (parent or grandparent) can be synchronized with a change in primary soul's energy level of the individual (ie. significant change of personality). This probably shouldn't be interpreted as coupling of the soul of a deceased with the soul of the individual, rather emission and absorption of quanta of energy associated with the change in energy level. However, temporary local coupling is likely involved - the soul of the deceased starts coupling with the individual due to genetic match but also triggering change in local energy level which aborts the process.

While deaths of family members might sometimes be synchronized with a change of personality of the individual, epigenetic changes in general are likely *coupled* to deaths, not necessarily of individuals of the same species (as noted before, souls oscillate and change energy levels, so it's generally inappropriate to refer to a particular soul as 'human soul').

Probability for inter-species interaction should be more likely in early stages of life (even homo puberty may be *coupled* with deaths, possibly of canine individuals), however inter-species *coupling* in adult stage is also possible. If other species is more evolved (eg. *B. musculus*), it might *induce* stronger changes in energy level which one may refer to as *transformation of consciousness* or *rebirth* (coupled with increase in intelligence), at least in some individuals.

This has serious implications on evolution and survival of species. In example, it implies that humans on a distant unpopulated celestial body could not survive multiple generations without a *Noah's ark*, but is also implies that current decrease of diversity of life on Earth will, in general, be coupled with decreasing complexity of life, and therefore, decreasing extroverted expression of intelligence.

Whaling, in particular, might have significantly decreased numbers of highly evolved homo individuals. However, causality is, per CR, relative and proper term is synchronicity. It is equally valid to say that changes

in soul energy, or excitation of space, have *induced* hunting of whales by homo.

Note that this does not imply that bodies of organs do not have an orbital momentum relative to the primary soul - it might only be extremely slowed down in time to relative 0 with growth during incarnation.

Note that rotating forces are not only present, but have an important role in shaping cells and organs, during embryonic development[18]. This *habit* of rotation was inherited from far ancestors, such as a carbon atom [soul].

### 3.5.1 Strong evidence in *lonely* hearts

In the previous chapter, I have hypothesized secondary souls orbit, at least periodically, around the primary. While the model might give good results for heart rates, is it real (proper interpretation)?

Alternative interpretation, where souls are in superposition with primary soul and only periodically couple with organs, may be more viable, but, in effect, the two interpretations are equivalent.

Hearts can still beat in a jar, and that seems like a good argument against the hypothesis, as, seemingly, there is no primary soul to orbit around.

Note that the fact that organs can be kept alive independently (even if for limited time) goes in favour of the hypothesis that these are organisms on their own.

However, there are solutions.

Hearts do not always beat at a constant (rest) rate, even when inside the body. This implies that either orbital speed is variable, or amount of coupling. I find the former unlikely - at least while the heart is not changing location (orbital distance), otherwise speed should decrease when the heart is outside of the body (to conserve momentum).

Variable heart rates with no change in location (and no change in primary soul's mass) strongly suggest the heart rate is determined by the amount of

coupling (period of time the soul is coupled or *absorbed* by the body of the heart).

If heart rate doesn't noticeably change with distance then the original orbital speed must be very high, but what is the heart's soul orbiting if the primary soul is decoupled from the body [and is now orbiting Earth]?

If the heart is dying, then its soul too might be orbiting Earth, only still coupling with heart's body periodically while it's kept alive (note that heart's soul is the primary soul for the heart organism).

If the soul is a *static* graviton, as hypothesized, then its orbital speed should be equal to standard speed of light ( $\approx c$ ).

Assuming that at time of death, heart's soul decouples travelling at the speed of light, it would take 0.13353 seconds to orbit around the Earth at its surface radius.

If one allows the soul to couple with the dying heart with each orbit again, the heart would beat at a maximum 450 bpm (when the amount of coupling is at its minimum).

This is exactly the maximum heart rate reported during ventricular fibrillation - measured heart rates are 350 - 450 bpm[19].

During this time, heart does not pump blood, and, if left untreated, death occurs within a couple of minutes. Impulses during atrial fibrillation are also 350 - 450 bpm.

This is then strong evidence for soul-body coupling and proves that our souls are indeed *static dark photons* or neutrinos of Earth's space (if this particle would not form a part of Earth's space it would radiate away rather than orbit, due to velocity exceeding gravitational escape velocity of Earth).

While our hearts likely cannot beat faster than 450 bpm, hearts of some mammals (like that of pygmy shrew) can and do beat at much faster rates.

This then strongly suggests that heart's soul orbits the primary soul while it's in the body and the host organism is alive.

This however implies that, even if the rest heart rate of an mammal is higher than 450 bpm, its rate during fibrillation could not be higher than 450 bpm (assuming all mammals have equivalent souls that do not exceed the speed of light, and that during fibrillation the heart's soul is orbiting Earth rather than some near *primary* - which might be possible in some cases).

Note that this also implies that, in case there are no significant differences in orbital eccentricity, fibrillation heart rate depends on heart's distance from Earth's centre.

In any case, the soul is not escaping Earth's gravity even though apparently its velocity [while uncoupled] exceeds the escape velocity.

Per the hypothesis, this is because these particles are constituent particles of space of a larger scale graviton. In this case, these would be the constituent particles of Earth's gravitational maximum (large scale real, or major, graviton).

Therefore, the souls are entangled with such graviton and have limited range which depends on their energy.

Orbital circumference of a *static* particle is equal to its Compton wavelength. Its effective range is then its orbital radius, or reduced Compton wavelength.

In this case, Compton wavelength is  $2R\pi$ , where  $R$  is Earth's radius. Required soul mass is then:

$$M_p = \frac{\hbar}{\lambda_r c} = \frac{\hbar}{Rc} = 5.53 * 10^{-50} \text{ kg} \quad (1.3)$$

$$\lambda_r = \frac{1}{2\pi} \frac{60}{450} c = 666.66\bar{6} * 10^{-4} \frac{c}{\pi} = R$$

$\hbar = 1.054573 * 10^{-34} \text{ Js}$  = reduced Planck's constant  
 $c = 2.99792458 * 10^8 \text{ m/s}$  = speed limit of space  
 $\lambda_r$  = reduced Compton wavelength  
 $R$  = orbital radius

The equation gives radius  $R$  equal to 6361794 m - Earth's radius at 61° latitude (at sea level, pole radius is 6356752 m, equatorial radius is 6378137 m, while Earth's volumetric mean radius is 6371000 m[20]).

This suggests that a fibrillation heart rate of 450 bpm at equator [sea level] would imply either eccentric orbit or offset of the gravitational maximum's centre from Earth's centre (or both).

Mapping [maximal] fibrillation rates around the world could provide more details here.

Note that a heart fibrillation rate of 350 bpm doesn't necessarily indicate bigger  $R$ , rather a stronger (longer-lasting) coupling. In that case, proper correlation of wavelength and radius  $R$  is:

$$\lambda_r = R \frac{450}{f_h} \quad (1.4)$$

$f_h$  = heart fibrillation rate [bpm]

According to my hypotheses, photon quanta oscillate between 3 major generations with rest masses ranging from  $10^{-51}$  to  $10^{-54}$  (effective mass though may even be a magnitude higher when correlated with frequency) and this mass corresponds to heaviest generation. A mass of  $1.64 * 10^{-53} \text{ kg}$  would correspond to a heart rate of 0.133 bpm during fibrillation - heart rates of painted turtles during hibernation[21], suggesting relative equivalence of states of hibernation and heart fibrillation.

Note that photon mass determined in experiments ranges from  $10^{-50}$  kg to  $10^{-54}$  kg[22] and is thus in strong agreement with hypothesized rest masses (suggesting that photon and *dark* photon have the same mass when interacting with standard matter, or that the former transforms into latter with interaction).

However, note also that this is the effective mass of the photon - it can be interpreted as rest mass, but relative to an absolute rest frame (c).

This mass is the result of high spin momenta - orbiting rest mass within the photon, according to my hypotheses, ranges from  $10^{-69}$  to  $10^{-73}$  kg. Using energy/mass/frequency equivalence, obtained mass of  $5.53 * 10^{-50}$  kg corresponds to a photon of the following frequency:

$$f = \frac{E}{h} = \frac{M_p c^2}{h} = \frac{450}{60} = 7.5 \text{ Hz}$$

This is, of course, on the order of Schumann frequencies[23] (very close to the fundamental 7.83 Hz frequency), correlating atmospheric discharges and, consequently, Earth's magnetic field[24], with its souls (as hypothesized earlier).

Living beings and living environments co-evolve and this correlation should not be surprising.

However, there are differences, in the former the metabolism is simply slowed down - the heart still pumps blood regularly, in the latter blood pumping is decreased (during ventricular fibrillation it stops completely).

Nevertheless, on soul level difference may simply be in strength (duration) of coupling, which is during fibrillation minimal and stronger during hibernation.

In that case, according to (1.3), depending on interpretation, particle of this mass in such state has at least one of these characteristics:

- highly eccentric orbit,
- *orbits* at speeds faster than standard light,
- *orbits* another celestial body.

In case of 3rd solution, these souls could be, in this state, orbiting Venus or Mars, effectively forming space of a nearby planet at that point.

Mass of  $1.64 * 10^{-53}$  kg gives  $R \approx 21.45$  million km, on the order of inter-planetary distances.

Here R varies with frequency so it has a range, or perihelion and aphelion. However, at the moment of coupling the *wavefunction* collapses to a discrete rest mass and probability for coupling has a maximum at that mass (or rest frequency), constraining the range of coupling frequencies.

The obtained  $R$ , however, represents coupling distance only in case of a perfectly circular orbit the probability of which generally decreases with distance. Maximum eccentricity would give a distance of  $R\pi$ , which, in this case is 67.39 million km.

With minimum distance of Mars from Earth being  $\approx 54.6$  million km and minimum distance of Venus from Earth being  $\approx 38$  million km, souls forming space of both planets are then viable candidates for coupling.

Since hibernation is strongly correlated with temperature, direct correlation with planets other than Earth seems unlikely, however, some correlation might exist.

It is a reasonable assumption that, in progressive evolution (up to the maximum of extroversion), coupling starts with *fibrillation*, then evolves to hibernation before it evolves a normal coupling rest rate (correlated with rise in extroversion, or consciousness on coupled scale).

Note that, while fibrillation might be usually associated with hearts, in this context, *fibrillation* denotes *loose* (relatively negligible) or extremely short periodic coupling of souls with bodies in general.

In that case, hibernation in painted turtles could be interpreted as *fossilized fibrillation* and may still be somewhat correlated with orbits of close planets (with some phase shift) even though it's mainly correlated with temperature now.

On Earth, coupling of gravitons with standard matter might have started evolving with *fibrillation* millions or billions of years ago (it probably also started multiple times from *scratch*, ie. with major extinctions), however, embryonic development is a lossy compressed evolution and, most likely, all couplings today also start with *fibrillation*.

In that case, assuming during this initial *fibrillation* the souls of certain species are orbiting Mars or Venus, the birth rates in these would be strongly correlated with distance between Earth and these planets.

But this has an additional interesting implication - does this *entanglement* indicate that the origin of such species is Venus/Mars? Or it simply means bodies on Earth can and do couple with souls from Venus and Mars (souls forming Venus' and Mars' space)?

In any case, the presence of nearby planets should be correlated with increasing diversity of life (different souls are coupling to different bodies). If

souls from Mars and Venus are coupling with bodies on Earth, souls of Earth's space must have been coupling with bodies on Mars and Venus at some point. Oscillation of soul mass, together with co-evolution of souls and bodies and required compatibility for coupling, suggests species of life on Earth are roughly equal to species of life on Mars and Venus, even if there's a phase shift in time between their evolutions. Table 1 shows photon rest masses (as hypothesized in

Hypothesized rest mass [kg]	coupling radius R [km]	coupling rate [bpm]	maximal coupling distance (R $\pi$ ) [km]	range	possible species correlation
$m_{\gamma\tau_0} = 7.396 * 10^{-51}$	47562	60.19	149420	local	
$m_{\gamma\mu_0} = 4.398 * 10^{-52}$	799836	3.58	$2.512759 * 10^6$	moon (satellite)	Mammalia: hibernation in Chalinolobus gouldii bats ( $\approx 3$ bpm[25]), groundhogs (4-10 bpm[26]), chipmunks ( $\approx 4$ bpm[27]), ...
$m_{\gamma e_0} = 2.127 * 10^{-54}$	$165.382082 * 10^6$	0.02	$519.563134 * 10^6$	inter-planetary	

Table 1: Correlation between hypothesized photon rest masses and *fibrillation*

CR), coupling radii and rates (in case of minimal coupling - *fibrillation*). Table

Effective mass [kg]	coupling radius R [km]	coupling rate [bpm]	maximal coupling distance (R $\pi$ ) [km]	range	species correlation
$m_{\gamma\tau} = 5.53 * 10^{-50}$	6362	450.00	19987	local	Mammalia: human heart fibrillation
$m_{\gamma e} = 1.64 * 10^{-53}$	$21.449249 * 10^6$	0.13	$67.384803 * 10^6$	inter-planetary	Reptilia: painted turtle hibernation

Table 2: Correlation between some effective photon masses and *fibrillation*/hibernation

2 shows effective photon masses correlated with species inhabiting the Earth's surface.

Interestingly, the ratio of hypothesized rest mass and associated effective mass is the same in both cases (up to the 3rd decimal):

$$\frac{7.396 * 10^{-51}}{5.53 * 10^{-50}} = \frac{2.127 * 10^{-54}}{1.64 * 10^{-53}} = 0.13$$

This suggests that the ratio between hypothesized rest masses is correct, as well as *fibrillation*/hibernation equivalence. Difference between effective mass and associated rest mass should be understood as difference in rest frequency and effective frequency, although it is not excluded that real rest masses are higher and closer to effective masses.

The same ratio applied to the remaining hypothesized rest mass ( $4.398 * 10^{-52}$  kg) gives effective mass of  $3.38 * 10^{-51}$  kg and a coupling rate of 27.53 bpm, which has coupling candidates, however, it seems that the hypothesized rest mass (or rest frequency), with more [and better] potential candidates for coupling (as shown in Table 1), in this case is more prevalent.

Obviously, correlation between photon mass and body mass and heart mass is present.

Heart mass is generally proportional to body mass - in Mammalia, heart mass scales isometrically with body mass (heart mass is  $\approx 0.6\%$  body mass)[28], but ratio can vary - in *C. gouldii* bats heart mass is  $\approx 0.5\%$  body mass[29], in Etruscan shrews 1.2%[30]. Heart mass scales proportionally to body mass in Reptilia too, albeit with different average ratio.

There are other correlations. The rest heart rate of chipmunks, for example, is 350 bpm - equal to minimum in human ventricular fibrillation, while calculated coupling rate of 60 bpm for  $m_{\gamma_{\tau_0}}$  is on the order of human rest heart rates (equal to normal minimum for adults).

One interpretation may be that, at least in some cases, the heart soul's orbital radius is invariant to state (does not change between fibrillation/hibernation/rest) - what changes is the amount of coupling, according to equation (1.4).

If heart's soul doesn't orbit the primary or brain's soul, equation (1.2) should be interpreted differently - the heart rate is not determined from orbital distance of the heart's soul from primary or brain's soul, rather, the distance from brain to heart is proportional to the strength of heart's body-soul coupling (which determines the heart rate). The reason for this proportionality then must be the fact that pumping blood to longer distance requires a stronger heart (and therefore, stronger coupling). Invariance to state, however, doesn't imply that the soul's coupling radius is Earth's radius.

In example, how to explain the extreme heart rates in animals like the Etruscan shrew *Suncus etruscus* (1511 bpm[30]), one of the smallest extant mammals?

Without involving speeds faster than standard light, coupling radius must be smaller. As noted before, one possible interpretation is that the soul is in that case orbiting, or *falling back* to, nearby primary soul. According to equation (1.2), for  $f_h$  of 76 bpm,  $r_h$  0.34 m, Etruscan shrew heart rate 1511 bpm gives distance of 1.71 cm. With the average Etruscan shrew size of 4 cm (excluding the tail), this seems appropriate for the distance between its brain's soul and its heart's soul.

It makes sense that, for smaller distances, there is a greater possibility for a soul to orbit a coupled nearby primary soul, rather than orbit the Earth's gravitational maximum.

In any case, comparing distances, masses and rates of oscillation between organs of different species and individuals of species, a lot could



be learned about the souls and their vertical and horizontal energy levels.

Difference between effective mass and rest mass is then equal, or at least proportional, to the maximal normal strength of coupling, correlating amount of coupling with oscillation of photon (soul) mass.

The rest heart rate of 350 bpm in chipmunks might then indicate a coupling of equal strength (in absolute value) to human heart fibrillation at 350 bpm. While this coupling is too weak for humans, in chipmunks it doesn't create issues due to lower energy requirements.

Thus, the same soul ( $m_{\gamma\tau}$ ) could be coupling with all Mammalian hearts, it just *collapses* to different rest mass eigenstates in different states.

Note that this is all consistent with decreasing heart rate from embryonic to adult stage.

Also note that the fact that not all human adults have a rest heart rate of 60 bpm indicate presence of horizontal energy levels and presence of minimal excitation of rest spin momentum for particular coupling.

Per CR postulates, both continuous and discrete transitions of energy must be relative, therefore, continuous transition on one scale will be discrete on other.

From our reference frame, on the scale of bodies, transition between all these states and energy levels is obviously continuous in time, while on the scale of souls it is discrete.

**Effective mass origin** The equation (1.3) can be rearranged to form the orbital angular momentum:

$$M_p R c = \hbar$$

Assuming this momentum is quantized and circular, it would have this form:

$$M_p R c = n \hbar$$

$$n > 0$$

where  $n$  is either integer or half-integer in Bohr interpretation (but may be more complex in others).

Assuming then that  $c$  and  $\hbar$  are relatively constant (in CR, there are no absolute constants), it is  $R$  or  $M_p$  that will have to be variable.

If orbits have to be harmonics, either  $M_p$  remains constant while  $R$  becomes equal to  $R_0/n$  or  $R$  remains constant while  $M_p$  becomes equal to  $M_{p0}/n$ .

Note that both  $c$  and  $\hbar$  are not scale invariant in CR (their values depend on a discrete vertical energy level) unless units of space are properly scaled. But even with no changes in vertical energy levels their values must oscillate.

But what is the value of  $R_0$ ? Table 3 shows orbital radii for hypothesized

Hypothesized rest mass [kg]	horizontal energy level (1/n)	orbital radius R [km]	possible correlation
$m_{\gamma\tau_0} = 7.396 * 10^{-51}$	8	5945	Discontinuity between Earth's upper mantle and transition zone, Earth's surface radius
$m_{\gamma\mu_0} = 4.398 * 10^{-52}$	2	399918	Luna aphelion
$m_{\gamma e_0} = 2.127 * 10^{-54}$	2	$82.691041 * 10^6$	Earth/Mars semi-major axis difference
$m_{\gamma e_0} = 2.127 * 10^{-54}$	4	$41.345521 * 10^6$	Earth/Venus semi-major axis difference

Table 3: Orbital radius for hypothesized *dark* photon rest masses for various n

photon rest masses and various values of  $1/n$ , with the assumption of constant  $M_p$  and  $R_0$  equal to one calculated in table 1.

In case n is greater than 1, previously calculated effective masses are exaggerated and should be closer to rest mass.

Note that here the values of n represent harmonics. If  $R_0$  (n=1) radii are equal to smaller radii calculated in table 3, the *excited* values of n, for larger radii, become integers.

Deviation of coupling from calculated R may be explained with splitting of energy levels or superposition.

Note that if superposition of levels n=7 and n=8 is interpreted as arithmetic average of associated radii, the coupling radius for  $m_{\gamma\tau_0}$  becomes equal to 6370 km, almost exactly the volumetric mean radius of Earth (6371 km).

In quantum physics, Bohr interpretation is the projection of momentum on one axis. Generally, the angular momentum has this form:

$$M_p R c = \sqrt{l(l+1)} \hbar$$

$$l = 0, 1, 2, \dots n-1$$

$$\hbar = 1.054573 * 10^{-34} \text{ Js} = \text{reduced Planck's constant}$$

$$c = 2.99792458 * 10^8 \text{ m/s} = \text{speed limit of space}$$

Note that this may be interpreted as superposition of adjacent levels, having the form of a square root of  $(n-1) * n$  (for maximal  $l$  here).

If that form is applied here, with  $R_0$  equal to  $R$  in table 1, the equation is:

$$M_p R c = \frac{1}{\sqrt{l(l+1)}} \hbar$$

Calculated radii, in case of  $l = n-1$ , are shown in Table 4.

Hypothesized rest mass [kg]	horizontal energy level (n)	orbital radius R [km]	possible correlation
$m_{\gamma\tau_0} = 7.396 * 10^{-51}$	8	6356	Earth's polar radius
$m_{\gamma\mu_0} = 4.398 * 10^{-52}$	2	565569	Luna aphelion
$m_{\gamma e_0} = 2.127 * 10^{-54}$	3	$67.516952 * 10^6$	Earth/Mars semi-major axis difference, previously calculated distance limit for $1.64 * 10^{-53}$ kg
$m_{\gamma e_0} = 2.127 * 10^{-54}$	5	$36.980558 * 10^6$	Earth/Venus semi-major axis difference, minimum distance of Venus from Earth

Table 4: Orbital radius for hypothesized *dark* photon rest masses for various  $n$

Note that now, for  $m_{\gamma\tau_0}$  the equation gives radius equal to Earth's polar radius (6357 km), while the superposition of  $n=2$  and  $n=4$  would give a Lunar orbit for  $m_{\gamma\mu_0}$ .

Which form of the momentum is appropriate?

The general form of the quantum momentum is a superposition (or vector sum) of two entangled perpendicular momenta:

$$\vec{L} = \vec{L}_1 + \vec{L}_2$$

$$L = \sqrt{L_1^2 + L_2^2} = \sqrt{n^2 + n} = \sqrt{n(n+1)}$$

But one component may become annihilated (negligible), which can be interpreted as a collapse to a particular eigenstate, or a collapse to Bohr form:

$$L = L_1 = \sqrt{n^2} = n$$

or

$$L = L_2 = \sqrt{n}$$

Thus, both forms of momentum may be viable and the choice will depend on interpretation - whether the collapse occurred or not.

In CR, however, it was found that large scale graviton radii scale with a square root of  $2^n$ . Applying that here:

$$M_p R c = \frac{1}{\sqrt{2^n}} \hbar$$

gives results shown in Table 5. Large scale Earth's graviton is, in CR, hypoth-

Hypothesized rest mass [kg]	horizontal energy level (n)	orbital radius R [km]	possible correlation
$m_{\gamma\tau_0} = 7.396 * 10^{-51}$	6	5945	Discontinuity between Earth's upper mantle and transition zone, Earth's surface radius
$m_{\gamma\mu_0} = 4.398 * 10^{-52}$	2	399918	Luna aphelion
$m_{\gamma e_0} = 2.127 * 10^{-54}$	2	$82.691041 * 10^6$	Earth/Mars semi-major axis difference
$m_{\gamma e_0} = 2.127 * 10^{-54}$	4	$41.345521 * 10^6$	Earth/Venus semi-major axis difference

Table 5: Orbital radius for hypothesized *dark* photon rest masses for various n

esized to have a radius of 1206 km (roughly equal to Earth's inner core radius) at n=1.

Scaling that radius with a square root of  $2^n$  gives a similar result for n=5 (6822 km) as one obtained with n=6 in Table 5. The 6822 km radius can be, however, correlated with a discontinuity between thermosphere and exosphere.

Subtracting Earth's volumetric mean radius (6371 km) from 6822 km gives altitude of 451 km. This is where molecular nitrogen is depleted[31] while monatomic oxygen is *exchanged* for helium (as dominant component).

Note that molecular oxygen gets *exchanged* with helium even sooner, at about 250 km altitude.

Since nitrogen and oxygen are main constituents of Earth's atmosphere, while hydrogen and helium above 450 km are monatomic and ionized (and thus probably could be interpreted as solar wind or inter-planetary medium components), the 450 km altitude probably should be interpreted as the real boundary of Earth's atmosphere.

Considering O/H *exchange* (monatomic oxygen/hydrogen *exchange*) occurs at about 600 km, while O<sub>2</sub>/H *exchange* (diatomic oxygen/hydrogen *exchange*) occurs at about 300 km, the 450 km may also be interpreted as superposition of boundaries between Earth and inter-planetary space.

Interestingly, the obtained 5945 km result for n=6 in Table 5 when subtracted from Earth's polar radius (6356 km) gives a depth of 411 km, which obviously could be correlated with the  $\approx 410$  km discontinuity[32] between Earth's upper mantle and transition zone.

A superposition of two radii (6822 km and 5945 km), as arithmetic average, gives 6384 km, very close to Earth's equatorial radius (6378 km).

Note that superposition of  $n=16$  for large scale graviton (308736 km) and 399918 km (Luna aphelion, or apogee) from Table 5 gives 354327 km, roughly equal to Luna perihelion, or perigee (363300 km).

The results not only confirm the hypothesized rest masses but also the entanglement with Earth's large scale graviton.

**Species of photons** Obviously, there are different species of photons.

In CR, I have hypothesized that standard photons have masses ranging from  $10^{-69}$  to  $10^{-73}$  kg. The range of these photons is the observable universe.

These are carriers of electro-magnetic fields of standard electrons and protons or atoms (they are negligible carriers of their gravitational field, I hypothesize graviton neutrinos (should not be confused with standard neutrinos) with mass minimum of  $10^{-68}$  kg as carriers of the gravitational field of standard atoms).

There are also species of photons of different scale ( $10^{-50}$  to  $10^{-54}$  kg) - *dark* photons, these have inter-planetary ranges and are carriers of both, electro-magnetic and gravitational field of large scale particles, such as planetary scale real gravitons (graviton neutrinos with larger mass should exist on this scale too).

As hypothesized in CR, one species can change into other by exchanging components of angular momenta, effectively exchanging polarized (electro-magnetic) potential for neutral (gravitational) or vice versa.

However, ranges of these masses could differ somewhat between different planetary systems (as well as masses of other subatomic particles).

### 3.6 Pulsation of consciousness

Consciousness have been often argued to be a sequence of discrete moments[33]. It is thus assumed that consciousness has frequency - it appears periodically with intervals of unconsciousness in between.

This has been quantified earlier by Buddhists - eg. Sarvastivadins believed in 6,480,000 moments of consciousness per 24 hours[34], or 75 in a second (75 Hz), while some Chinese Buddhists believed this frequency to be 50 Hz.

And these are in good agreement with modern science - assuming coherent neuronal membrane activities at gamma frequencies are correlated with consciousness, the frequency is 30 - 100 Hz, depending on brain region, although the coherent 40 Hz resonance here is considered most significant[35].

I fully agree with the hypothesis of oscillation of consciousness, however, per CR postulates, neither consciousness nor unconsciousness here can be absolute.

Consciousness is thus not absolutely discrete and its amount is not constant - besides the frequency, it has intensity and magnitude.

The oscillation between conscious and unconscious states is, therefore, oscillation between different magnitudes (vertical energy levels). Thus, while the soul is unconscious on one scale it is conscious on the other (this is required for unconsciousness to be relative).

Brains or brain equivalents should be present on both scales, however, since brains themselves do not oscillate with the soul, the oscillation is a switch of context and if there's effectively no shared memory between the contexts there is no possibility for the soul on one scale to be aware of the other.

It is likely, however, that subconsciousness at some level, at least in certain conditions, has effective access to memory of other scale. And since energy on smaller scale implies faster information carrier particles (per CR, speeds should be even greater than standard speed of light at some scales), for the larger scale, effectively, this channel of communication can be a window to future (which can be correlated with precognition).

Assuming now, that each neuron cell is, like the heart during fibrillation or turtles during hibernation, an organ[ism] in an equivalent state (hibernation probably being the more appropriate interpretation), the frequency of 40 Hz should be interpreted as frequency of coupling of a neuron's soul to the body of the neuron cell. This coupling then, just like in the case of a heart, results in an electric (electro-magnetic) impulse in the neuron.

Note that neurons themselves are micro-conscious entities here, as others have also hypothesized[36].  
Frequencies in the same range would here correspond to individual cells of the same species, while different ranges (alpha, beta, ...) would correspond to different species or sub-species (polarized, non-polarized).

Since the scale of a neuron cell is much smaller than the scale of a heart, and their souls should be proportionally scaled, instead of orbiting Earth during hibernation, the neuron's soul is most likely orbiting the primary soul (note that 40 Hz frequency orbit around Earth would also imply superluminal velocity).

The pulsating excitation of neurons (change in energy levels) could then also be interpreted as absorption of energy radiated by the primary soul. Assuming the naked primary (or *primal*) soul (uncoupled from the body) is orbiting the Earth at the standard speed of light as hypothesized, and its angular frequency is 40 Hz once coupled with a body (which may now be interpreted as spin frequency), one can calculate its angular momentum components. With angular

momentum conserved:

$$m_1 v_1 r_1 = m_2 v_2 r_2$$

$$m_1 c r_1 = 2\pi f_2 m_2 r_2^2$$

If coupling of souls with the body of matter starts at conception, it starts as a coupling with a single cell (the egg cell), however, coupling between discrete vertical energy levels is most likely to occur between equivalent *elementary* particles. Therefore, a soul (graviton, or dark matter particle) will couple first with [the mass of] an atom.

Coupled graviton has, depending on interpretation, either mass equal to total mass of the system (*shielding interpretation*), or half the total mass at full capacity.

Here, most likely atom the soul will be coupling with is the Carbon atom.

Assuming mass  $m_2$  equal to the mass of a  $^{12}\text{C}$  isotope,  $m_2 = 1.9944733 * 10^{-26}$  kg. With  $m_1 = 5.53 * 10^{-50}$  kg (as calculated previously),  $c = 2.99792458 * 10^8$  m/s,  $r_1 = 6,371,000$  m and  $f_2 = 40$  Hz, radius of a coupled soul is:

$$r_2 = \sqrt{\frac{m_1 c r_1}{m_2 f_2 2\pi}} = 4.59 * 10^{-6} \text{ m} = 4.59 \mu\text{m} \quad (1.5)$$

Interestingly, this is much larger than a carbon atom (implying that in such coupling the soul gravity might be shielding the carbon atom gravity - body is *trapped* inside the soul at that scale).

Also very interesting is the fact that this is on the order of cell sizes, potentially solving the problem of consciousness in single cell organisms (but it also suggests that the membrane of a cell is a *fossilized* soul spin radius).

Protozoans (single-celled organisms) like Physarum can escape mazes[37] and solve other problems[38], and Paramecium can swim, find food and mates, learn and remember[39], all without synaptic connections.

Consciousness of these organisms might be simply using memory of a smaller scale (memory of the soul itself) instead of memory of a standard brain. Relative to us, the consciousness in these organisms is not oscillating (we cannot detect the oscillation).

It is not excluded, however, that, at least in case of smaller soul radii, equivalent of standard neuronal interactions exists in intracellular molecular interactions (in eukaryotic cells these are likely interactions of microtubules), however, just like the former, the latter shouldn't form the consciousness either, it would only be correlated with its manifestation. Perhaps the best evidence that microtubules in a cell are equivalents to neurons in a brain is the fact that computational capacity (number of operations performed per second) is equal between a cell using microtubules and a brain using neurons for computation. Some believe that microtubules thus increase brain's computational capacity[40]. That is

equivalent to a notion that neurons of individual people increase computational capacity of the entire human population. While that might be true in certain conditions, this is still only processing of information *per se*, not consciousness.

Consciousness implies understanding of computation and the ability to affect that computation *at will* (mentally) with no external [physical] stimulation. For the observer, such system is thus stochastic, contains hidden processes (variables) and is therefore non-computable.

All this is relative - on some scale mental is physical and these processes are deterministic and computable to some degree. But on each scale, there always exists an unreachable (non-computable) scale.

This recursion is a hard but necessary problem for simulation, it ensures relative free will.

One should thus consider consciousness (soul) as relative too.

Consider a person programming an ordinary (deterministic) computer. Such system is stochastic (it's impossible to tell with great certainty how the programmer will use and program the computer). In that system, it is valid to say that the computer is the brain, while the person is the soul (manifestation of consciousness) of the system.

But if one tries to model such system with two deterministic computers, without quantum *interference*, such system can only be pseudo-stochastic to us. One can simulate all the physical processes (movement of hands, etc.), even the network of neurons, but one ultimately comes to a limit of what can be simulated.

And what about feelings?

Whatever the programmer feels could be inputted in the computer and signalled as noise or a pixel on the screen (equivalent to excretion of hormones in human body).

Again, modelling that with two computers makes feelings equivalent to noise or a pixel (something *physical*) - on both machines. Consciousness and feelings are beyond simulation - non-computable, due to inherent barrier between physical and mental scales in reality.

Therefore, if we agree that people are stochastic and have feelings, while brains are deterministic and physical, then something stochastic and mental (non-physical relative to us) must be *behind* the brain.

To model it, best available tool in modern physics is [incomplete] quantum mechanics, but to understand it, one needs complete relativity.

Quantum superposition requires isolation from kinetic energy of standard atoms, on room temperature that can be, for significant periods, achieved only with particles of  $U_{-1}$  scale, not  $U_0$  particles like standard atoms. While standard quantum states might exist in microtubules of neurons (as proposed by Orch OR) for moments, if one is looking for a soul, one is looking for an analogue of a person controlling the computer, and that's a superposition in space centred in the head (not even necessarily within



the brain computational tissue).

It might be impossible to see it, but it's possible to know it's there.

The obtained radius implies that souls of atoms in a cell will overlap. At 40 Hz, all these souls will thus likely be in superposition. But why collapse to 40 Hz with single atom coupling?

More likely, soul radius in that coupling is much smaller (with higher frequency of oscillation) - it only increases to cell size in a cell 40 times per second (perhaps because superposition becomes unstable at that scale).

This would explain consciousness of single-celled organisms (micro-consciousness) at these frequencies. To explain consciousness in complex organisms (or consciousness of an organ such as brain), the collective of cell souls must form superposition themselves - at 40 Hz, for certain neuron species in humans.

And this superposition must have a radius in the range of centimetres.

This can be achieved by increasing the number of souls coupling with the atom - why would this coupling be limited to one soul per atom if soul's mass is smaller by so many orders of magnitude?

Most likely, the number of souls coupled to an atom is much bigger - only the number of coupled souls that will form consciousness of an organ[ism] is equal to number of cells forming that organ[ism].

Equation (1.5) then becomes:

$$r_2 = \sqrt{\frac{n m_1 c r_1}{m_2 f_2 2\pi}} \quad (1.6)$$

where n is the number of cells constituting the organ[ism].

Coupling capacity, however, must be limited - the number of souls coupled to an atom is finite. Therefore, the number of cells that can form discrete individual consciousness is limited.

Assuming human consciousness has a frequency of 40 Hz, for an average brain 1200 cm<sup>3</sup> in volume required radius (r<sub>2</sub>) should be ≈6.6 cm (radius of a 1200 cm<sup>3</sup> sphere). This gives for the number of cells:

$$n = \frac{2\pi f_2 m_2 r_2^2}{m_1 c r_1} = 206.729530 * 10^6$$

$$m_2 = 1.9944733 * 10^{-26} \text{ kg}$$

$$m_1 = 5.53 * 10^{-50} \text{ kg}$$

$$c = 2.99792458 * 10^8 \text{ m/s}$$

$$r_1 = 6371000 \text{ m}$$

The number seems appropriate (the brain has billions of neuron cells but not all participate in formation of consciousness at 40 Hz).

Note that in some whales, due to twice larger  $r_2$ , up to 4 times more neurons could participate in the formation of consciousness.  
 Also note that effective mass  $m_1$  may be somewhat different for a brain soul, and should also differ between polarized and non-polarized individuals.

It is also unlikely that consciousness is formed by single frequency here, rather multiple frequencies - forming levels of consciousness and subconsciousness.

But there is a problem here - why would all these neuron souls form a superposition with a centre in the brain and not Earth?

Obviously, there must be some *maestro* (real graviton) in the centre of superposition that is oscillating in mass and *orchestrating* excitation of neuron souls with periodic entanglement.

And that is the real soul of the brain - the superposition of neuron souls doesn't form a real graviton, but effective one - transferring information from the brain to real graviton by forming imprints in its space.

Assuming 3 major layers (levels) of consciousness, the *maestro* (primary soul) would be oscillating between 3 mass eigenstates. The radius is smaller than  $r_2$ , but the mass may be proportional to  $n \cdot m_1$ .

If the mass of a primary soul is proportional to number of cells participating in formation of consciousness, it could be an additional reason why the heart's soul orbits the primary soul rather than the soul of the liver.

Interestingly, for a frequency of 40 Hz (2400 bpm), the equation (1.3) would give a radius equal to Earth's inner core radius ( $\approx 1.2 \cdot 10^3$  km). That is exactly the radius I have previously hypothesized for Earth's gravitational maximum or Earth's soul (large scale real graviton). But there are also polarized components - one has a radius in the outer core, the other *below* the inner core radius.

The frequency of 30 Hz gives a radius in outer core ( $1.6 \cdot 10^3$  km), while 90 Hz gives a radius in inner core (530 km).

And here's the hypothesis. Consciousness at 40 Hz, synchronized with Earth's soul momentum, is neutral, the other two are polarized. This is then correlated with bias (subjectivity) of thoughts and, thus, choices individuals make.

In neutral people, the superposition of frequencies will generally collapse to 40 Hz eigenstate, in others, it may be polarized *left* or *right*.

Of course, *left* and *right* frequencies should be correlated with Earth's magnetic field but probably not directly with the field caused by standard  $[U_0]$  ions, electrons and protons, rather the field of different scale induced

by half-photons ( $U_{-1}$  scale particles) orbiting in the outer and inner core. The two fields are correlated though.

The half-photons should be orbiting at the *speed of light* (as hypothesized) when uncoupled. With coupling to standard ions one field is decreasing in strength, the other is increasing in strength. This would explain the previously found correlation with lifespan - while the standard particles are sensitive to fields induced by standard ions, photons are sensitive to the component of the field induced by half-photons ( $U_{-1}$  scale ions) which might have inverted dB/dt.

Soul, as a particle, can be excited - change energy level. As noted before, this change could then be associated with transformation of consciousness that occurs in some people during their lifetime - with a jump in energy level of the *maestro*, the individual may become more focused, with improved memory and intelligence.

Death is simply a change of oscillation context (oscillating scales), making the real graviton relatively immortal (relatively due to relativity of identity and *fading* of memory).

### 3.6.1 Moments of consciousness: My name is Legion, for we are many

There might be about 40 conscious moments in any second for us, but what exactly is a conscious moment?

It was assumed previously there is a central particle (soul) that acts as a *maestro*, *orchestrating* the excitation of souls of neurons which is then reflected in electro-chemical action - just like Physarum, a neuron cell is a single-celled organism reacting to changes in soul [memory]. Now suppose this organism is in a state of hibernation (*fibrillation*) - 40 times per second the souls of neurons inflate [radius] and start orbiting one central point (not the Earth, but central point *in* the brain area). Since souls are particles of  $U_{-1}$  scale they are bosons at  $U_0$  (scale of standard atoms) room temperature. Synchrony of neurons in time is thus transformed to a superposition in space - a moment of consciousness.

Note that here, intermediate energy levels can exist - a group of neuron souls might inflate to orbit an intermediate soul (intermediate *maestro*) which then inflates to orbit the *primary maestro*.

But this superposition (which could be described by a quantum wave-function) is relatively unstable and it quickly collapses (reduces) back to individual neurons. This implies that the moment of temporally synchronized activity of neurons is actually a moment of [relative] unconsciousness for us - in that mo-

ment, consciousness is fragmented to individual neurons (which are in a state of relative hibernation). Unconsciousness, in that case, should be interpreted as extremely decreased (blurred, or defocused) discrete or collective consciousness of the [eco]system, or de-localization of [relative] singularity. However, that moment is also a collection of information which is imprinted in neuron souls and conserved with the creation of the moment of consciousness.

Note that in the state of superposition, the soul can encode new information into souls of neurons which is with the collapse transferred to individual cells. This is how the soul mentally affects the deterministic computation. The process is thus a two-way communication.

Note also that the process doesn't have to be limited to neurons, the soul can mentally affect other cells too, which is evident in states of meditation (although stimulation might be indirect).

The amount of consciousness, however, can differ a lot even between individuals of the same species. Some people (neutral species in my hypotheses) have greater influence on the processes in the body and some will be able to stimulate reaction to, and even cure, certain diseases.

Others, due to polarization, might find it hard to mentally influence the body. Due to subdued signal, individual souls in cells may be more likely to ignore the message of the *maestro*. However, I believe the bigger problem may be political - the message itself. How many polarized people are working in the interest of their own *maestro* - Earth (or, its primary soul)?

The polarized people are, generally, those who are destroying the Earth, directly or indirectly - their care is fake (even though they might not see it as such). This is reflected in their bodies so individual souls don't work in the interest of their *maestro*, they might fake care, but all they really care about are their short-term interests.

Generally, in the heads of neutral people there's not only synchrony, but harmony, in others, constant wars and diseases.

The primary (or *primal*) soul is likely at the moment of initial coupling to an atom (or its nucleus) already a collection of souls in a state of a relative singularity in space. It is then when it starts destabilizing. And with growth and development (evolution), including genetic code interpretation, the soul of the [future] brain is fragmenting into individual neurons, increasing consciousness (or amount of information that forms each moment of consciousness).

This implies that brain size (or more precisely, number of neurons) is proportional to [amount of] consciousness, or at least if [amount of] consciousness is proportional to information (resolution) of the moment of

consciousness. In that case, whales (and possibly elephants) are more conscious than us and probably even more intelligent, even though the means to express that intelligence externally have been subdued. Their dreams could be more rich than our daily lives and, as research shows, they are probably dreaming during daily activity (whales can turn off some external sensory input at will) making their experience of daily [extroverted] activity blurry and their extroverted action non-complex (at least one that we can understand).

Per my hypotheses, these or similar creatures are what we, or at least some of us (who continue evolving progressively), will eventually evolve into.

At time of death the souls of neurons collapse into singularity for the last time - with memory conserved (!). Why don't we remember our past lives then? Or, can we be sure we do not on some level?

The reason could be effectively limited capacity of memory, that operates on FIFO (First In First Out) basis on some level - with new memories, old ones are subdued. This implies that young children may be able to retrieve memories from past lives - explaining some *irrational* behaviour.

Although visual memories of past lives may be generally limited to young age, some information likely survives into adulthood and may be even strengthened by physical coding on some level (natural selection is not limited to environment, it happens inside the bodies too). Thus, behaviour in adults too can be related to past incarnations, whether [considered] irrational or rational. Fear, in particular, may be the leftover imprint of past experience, which, however, may be strengthened or subdued in current incarnation.

And if soul oscillates inter-species (why wouldn't it?), this has some interesting implications.

But all this has one *bigger* implication - Earth too must be a conscious being. As noted before, soul at death of a living being on Earth is decoupled from a body and orbits the Earth.

This is equivalent to decoupling of souls of individual neurons in a brain to form a moment of consciousness of the brain. Therefore, complex lifeforms on Earth are neuron cell equivalents (or precursor neuron cells) for Earth.

Note that humans are evolving to more passive (more introverted) life-forms. Our sensors are concentrating near the brain but are also being subdued. If not already, one human lifespan will eventually be inter-

preted [by Earth] as a moment of hibernation while human lifeform will be a single-celled organism relative to Earth.

Note also that I have hypothesized elsewhere that humans are, at least in current form, precursor neuron proteins, rather than cells. That would suggest that souls of neural proteins also have a role in the formation of a moment of consciousness.

In that case, the walls of our houses could be interpreted as precursor cell membranes. And if humans are precursor neural proteins, the shape of these houses should probably be converging to pyramids.

Typical age of complex lifeforms that are the biggest *maestros* is on the order of decades - relative to us (time flows differently between scales, a couple of millennia of time measured by us could be one second of time for Earth). Frequency of consciousness for Earth thus might be 1 conscious moment per 50 years (on average).

Note that not every living being on Earth is part of its life supporting system, eg. there are diseases (although these too can be genetically coded and have a role in the formation of the organism, they simply become domesticated).

Cancer cells, for example, might not participate in the formation of the moment of consciousness of an individual. In fact, with transformation/replacement of neuron cells to/with cancer cells, the individual is losing [amount of] consciousness and, by that, probably losing body-soul coupling strength, increasing probability for decoupling (moment of death).

Since, generally, one moment of consciousness does not differ much from the other (at least when not dreaming), difference between soul incarnations should generally be minimal and the soul should have some affinity for particular bodies (or cell DNA).

The question is how relative is "minimal difference" here. Single human soul might be participating in a formation of a single *pixel* of Earth's moment of consciousness (the *pixel* here is nothing less than a tensor, if one would be able to model it mathematically). Here, visual appearance of a body might not matter much. However, some physical characteristics are correlated with mental and some affinity is likely to be present in such cases.

Intermediate *maestros* imply inter-species oscillation at least in some cases. This inter-species oscillation in time when manifested as symbiosis (eg. human and canine) is likely to converge to superposition of species in space.

Births and deaths are obviously synchronized. If one species is declining in number, it is becoming more likely for its individuals to incarnate as different species at the moment of death.

The capacity of souls is the capacity in time and the oscillation here should primarily be oscillation between different lifespans (eg. assuming embryonic development/neurogenesis, two different gamma frequencies converging to one), it might be inter-species only in case lifespan of individuals in one species is unlikely to be equal to the other lifespan in oscillation (eg. if two lifespans in oscillation are 72 and 8 years the latter is unlikely to be human).

Given the qualitative equivalence between scales it would be naive to expect that this convergence proceeds at constant rate. Evolution of species on Earth should thus also be pulsed - periods of weak (slow) evolution should be interrupted with spikes of strong (accelerated) evolution.

And what should this strong evolution be synchronized with? The inflation of the Earth's soul in order to form the moment of consciousness of the Solar System, whose primary *maestro* is the soul within the Sun. Such moments may be millions of years apart and are likely correlated with extinctions on Earth.

## 4 Reincarnation in complex lifeforms

Reincarnation is oscillation in material content coupled with the soul. A soul reincarnates at the moment of death when it decouples from the current body, couples with another and starts *acquiring* new mass in the form of standard matter.

Soul evolves together with matter, so even though one might refer to past lives as past lives of a particular soul, such references are conditional, the soul evolves from past lives just as the body evolves from the bodies of parents and grandparents.

*I was me yesterday, but today my self is something else...*

A body, like soul, effectively has its own past lives.

No one will refer to the life of its parent or grandparent (up to the moment of conception) as its own past life, but it effectively is the past life of the body and each body will at certain times in life relive some moments of these past lives in, more or less, compressed form (just like

the soul will relive some moments of its own past lives in compressed form).  
 All of, and entanglement with, these past lives, relative to the individual, decay, as current life evolves.

Apparently, Nikola Tesla correctly deduced that people are [large scale] photons. Complete Relativity shows that people and all life of large scale in general must be a corpuscular manifestation of an oscillating energy.

Since everything is relative, so is determinism. From our perspective it might seem that life on Earth evolved by pure chance and that evolution is simply optimization for survival with no specific goals (targets). Once it becomes obvious that Earth is an evolving life form and, relative to Earth, we are its cells or proteins, it becomes clear that our evolution is scripted at some level.

It is also obvious that evolution involves at least 3 parties - lifeform(s), environment and a medium in which their interaction is embedded, and all these parties are relatively alive.

Evolution is thus always symbiotic - one might be adopting to environment but it is also changing the environment. One might be also adopting to the medium but one is affecting it too.

Lifeforms and environments are proteins and cells, while the medium is a personal space of a lifeform. It becomes obvious that this space, characterized by its gravitational maximum(s), must form the soul space of a living creature.

And this is where [directly] unobservable phenomena are manifested, including those associated with feelings.

Some might argue that feelings are the result of excretion of hormones, which is equivalent to the notion that excretion of tears causes sadness.

First and foremost - physical and mental phenomena are relatively synchronized, which phenomena will be interpreted as a feeling is relative. Secondly, communication is two-way and causality is relative too.

Excretion of tears might cause a phenomenon of sadness in soul space, which will, with positive feedback, increase excretion of tears (or vice versa).

Space has memory (gravitational waves and *dark matter* prove that) so it is obvious that, once matter decouples from particular space, memory remains on some level (scale).

If personal space of a human animal is formed with localization of a quantum of Earth's space, it becomes clear that the same quantum could get coupled with different bodies over time.

Each life form is thus not only the product of coupling of parental DNA and characteristics stored in memory of merging gametes, but also coupling of this interaction with a *3rd party* medium it is embedded in.

Consider a soul in a canine body which was previously in human body - the soul will drive the body to evolve human characteristics, while the body will drive the soul to subdue human characteristics and evolve canine (all will be



happening slowly during weak evolution, but at accelerated pace during strong evolution).

Such coupling will at first be very unstable and short-lived (decoupling might occur already at embryonic stage), however, over multiple generations, two species will become more and more similar and new species will be formed - a chimera, *superposition* of original species.

Thus, oscillatory soul coupling between different species of bodies in symbiosis will effectively result in horizontal gene transfer between species.

Horizontal gene transfer, when a species receives genes from another species and incorporates them into its own DNA, is known to occur between bacteria, while it is considered highly uncommon between multicellular organisms.

However, recently, horizontal gene transfer from a plant to an animal has been discovered in the wild, for the first time[41].

Note that, by conventional theories, in complex lifeforms genes dominantly transfer vertically from parents to offspring, while it is believed that horizontal transfers happen rarely and by chance when, accidentally, one gene from one species ends up in another.

However, such reasoning is a consequence of uniformitarianism based on experience of weak evolution, where vertical transfer is a dominant gene transfer method.

Discarding randomness, this becomes a good evidence for soul oscillation - as hypothesized, soul has its own DNA equivalent co-evolving with a body, enabling horizontal gene transfer between species.

The soul genome [difference] could be considered as a blueprint for evolution (mutations) of body DNA, however, something has to physically alter the host body DNA. I consider viruses to be viable candidates as carrier particles of soul-body synchronicity, triggering these gene mutations (likely, this can even be directly mentally stimulated and even viral transfer could be interpreted as a physical manifestation of mental stimulation at some level).

Discovered horizontal transfer between a plant and an animal may be, at this point, considered an extremely rare accident of a gene transport by a virus, however, during strong (time compressed) evolution, such horizontal transfers between species should become more common, accelerating growth in frequency with evolution, and at its peak, likely even displacing vertical transfer as a common gene transfer method.

## 4.1 Oscillation

Each soul has a relatively discrete amount of energy, it co-evolves with bodies and its coupling with species of bodies (eco-systems) will generally not be

random.

As [the soul of] particles inside the atom oscillates, human soul will oscillate too between different energy levels.

The period of time soul spends on each level is, in equilibrium, relatively constant (evolves slowly) - incarnations oscillate between relatively fixed lifetimes.

Frequency of oscillation changes with changes in the 3rd party medium - in this case, Earth.

High divergence is thus expected only in events of strong evolution - transformation of species through accelerated evolution, when soul *settles* into another equilibrium, oscillating in a different energetic setting (environment).

Note also that time of death is programmed to high precision, whether it is considered sudden, violent or occurring with old age. If a soul oscillates between 84 and 35 years in human lifespan, death in the latter will likely be violent.

This would be the equivalent of standard [horizontal] energy level changes of atomic electrons in QM. In such oscillation there is no change in species (average mass on each level), however, the state of particles (planets) in the Solar System (per my analysis) shows that particles can oscillate in mass (lepton oscillation, vertical) with no change in horizontal energy level.

In that case (significant mass change), a soul will couple with different species of bodies, evolving in the same environment. Here, soul may even invert polarity (reflected in extro/intro intelligence ratio) preserving lifespan between species, but with a large difference in mass.

I have hypothesized that my soul generally oscillates horizontally between human incarnations of  $\approx 84$  y and  $\approx 35$  y with roughly equal mass. But at any of these levels, it may also oscillate vertically in mass, in which case the soul could be oscillating between human and whale species - eg. Orcinus orca (lifespan 35 years) and Balaenoptera musculus (lifespan 84 years).

Note that oscillation of *human* souls on a planet surface seems to be entangled with energy levels and mass oscillation of planets in the Solar System.

Assuming my soul is vertically entangled with Mars' soul, oscillation between human form (76 kg mass) and blue whale (oscillation *soul mate*) form of 67240 kg is equivalent to difference in mass between Mars and Saturn.

This vertical entanglement of souls is further confirmed comparing the maximum size of a largest mammal on Earth with largest *mammal* of

the Solar System - Jupiter.

The mass of Jupiter is 3.34 times Saturn's mass, this would give a maximum mass of 224686 ( $3.34 * 67240$ ) kg for the largest mammal on Earth's surface (blue whale), agreeing very well with recorded and estimated maximum sizes for blue whales. Note that this implies that, if one does not consider Jupiter and Saturn bodies to be of the same species (although they are closely related - both are in 2e configuration, according to my Solar System analysis), then one may consider that there are two species of blue whales - those that reach 23 m and  $\approx 70$  tons, and those that might reach 33 m and  $\approx 230$  tons. However, as  $\approx 23$  m is also the length when they reach [sexual] maturity, rather than belonging to two different species, the point of maturity may be considered as a milestone (discontinuity) in evolution. Relatively, Jupiter species evolve from Saturn species, and that particular *moment* of strong evolution is fossilized as the point when it now reaches maturity.

Note that *Saturn's* radius is fossilized as discontinuity in Jupiter - stripping the outer layer of molecular hydrogen from Jupiter would make it equal to Saturn in size.

Fossilization generally occurs in violent events. Strong evolution events may be relative extinction events but they are also life transformation events. And life transformation generally includes transfer to a place where conditions are favourable for new life. Thus, Jupiter too, was not formed where it is now. Comparing Mars with Luna (Moon) is [among mammals] equivalent to comparison between humans and some monkeys or smaller dogs.

Difference in mass between Mars and Venus/Earth is equal to difference between humans and cattle (domesticated/wild) or bottlenose dolphins. It is thus most likely that these are the species *human* soul may oscillate between. Neutral human souls are more likely to oscillate between wild animal forms (neutral homo, cetaceans, ...), while others are more likely to oscillate between domesticated animal forms (polarized homo, domesticated canines and ungulates, ..).

Note that outer planets are more evolved than inner planets, making whales more evolved than humans. As noted before, quite likely, these species are significantly more intelligent than humans, albeit they have lost most of capability for external expression of intelligence. Not only that, but through soul oscillation, they stimulate evolution of intelligence in humans - introversion in humans likely has a source in whales, although it is still only a precursor to real introversion (we still have significant means of external expression).

A soul may couple with *non-compatible* species of bodies in between (probability for coupling of a particular soul and body should be inversely proportional to distance in space/time between death and conception, and proportional to

compatibility), but for much shorter amount of time than the average lifespan of the species (death will occur sooner due to incompatibility).

Soul thus has affinity for certain characteristics of bodies - which are DNA coded.

If souls and bodies co-evolve, both mental and physical characteristics should be more or less preserved between incarnations. Although, one must take into account evolution, some characteristics evolve weakly (especially during periods of weak evolution of the planet/environment).

While coupling is not perfect, one can expect significant preservation of strong (*identity* defining) characteristics between incarnations in bodies of same species, such as:

- blood type,
- physique (somatotype),
- sex/gender,
- intelligence amount and extro/intro ratio,
- etc.

Note that coupling of bodies and souls and oscillation of dominance between soul components can explain why identical twins diverge in personality over time[42].

Some hypothesize that this occurs due to changes in epigenome. However, while that should be a factor, direct or indirect soul influence cannot be ruled out (eg. differences in soul personality could translate to differences in preferred lifestyle and environment, leading to epigenetic changes).

However, while I have hypothesized that the soul is already at time of conception a superposition of souls of future cells and organs, this is not necessarily the case and even if it is, the individual components might be replaced or lost over time. In example, organs can be transplanted. With a new organ, new souls become part of the system.

Since not all organs will be accepted by the organism, the requirements for successful transplantation could reveal affinities of the particular organ soul.

#### 4.1.1 Details

Souls (*static dark photons* and neutrinos) generally oscillate between 3 generations[43], but this can be reduced to a two-body oscillation due to large difference in energy.

This oscillation will also oscillate between oscillation in space (mass) and time (lifespan) - one may be dominant. If mass stays relatively constant, oscillation is time dominant.

For an effective two-body oscillation, soul will effectively oscillate between two lifespans but with no change in species (eg. reincarnation between human bodies with lifespans of 85 and 35 years).

Mass is always a superposition - in time dominant oscillation, this is a superposition of two bodies of the same species.

During weak evolution, oscillation is generally time dominant, however, per the hypothesis, during strong evolution gene transfer becomes dominantly horizontal and mass becomes superposition of different species (a superposition of oscillation in time).

In CR, I have deduced the equation for soul acceleration at time of emission (decoupling):

$$a = -\frac{1}{2} \frac{c^3}{\hbar} \left( \frac{1}{2} + \frac{1}{2} \sin^2 \phi \right) \Delta M \frac{1}{\sqrt{1 - \frac{f^2}{f_n^2}}}$$

$$\Delta M^2 = 2^2 \frac{M_1^2 + M_2^2}{2} = 2 (M_1^2 + M_2^2)$$

Here, the type of oscillation is specified as a mixing angle ( $\phi$ ) and  $\Delta M$ .

The angle represents polarization while  $\Delta M$  represents superposition of mass.

During weak (non-polarized) evolution, the mixing angle is generally  $90^\circ$  and  $M_1$  is generally equal to  $M_2$  (superposition of equal species in space/time).

However, during strong evolution, angle decreases and  $\Delta M$  becomes superposition of different species.

Note that polarization is generally proportional to bias and thus inversely proportional to intelligence. It is electro-magnetic at some level and it is probably necessary to *guide* species to the south pole and further into mantle during a migration event of the hypothesized planetary neurogenesis.

Thus, for most individuals it will probably be temporary (effectively limited to period of strong evolution).

Human intelligence has generally reached its peak and is currently declining[44]. This is yet another evidence that we are in a period of strong evolution.

I have hypothesized elsewhere what [superposition of] species the general population is evolving into (homo.gamma[4]).

Thus, human intelligence in polarized population will generally continue declining at an accelerated pace until it becomes a superposition of human and typical domestic animal intelligence (generally canine).

Current high polarization (*vaxxers*, *anti-vaxxers*, *flat-earthers*, *religious mainstream fanatics...*) of society and its delusions are just a precursor of a collapse of civilization, which will be increasingly concentrating on

shorter and shorter short-term interests.

However, certain number of individuals is not polarizing and may even be decreasing polarization (increasing intelligence). This is generally valid for any strong evolution event - certain percentage of population is always immune to strong evolution (this creates diversity which is essential for life).

## 4.2 Experience of past lives

An individual will inevitably, in some way, re-live strongly imprinted moments from past lives in compressed form. For a body this re-evolution is typical and strongest during embryonic stage of development, for a soul this will generally be happening during the post-natal stage of development.

The greater is the difference in evolution of a body and a soul, the harder the life will be for both. The matching should be *governed* by karma.

Differences between individuals arise due to different lifetimes in specific forms. Souls that spend a lot of time in less evolved forms will likely evolve slowly and resist progressive evolution when coupled with more evolved forms - compression of previous lives is lower for such incarnations.

However, the presence of a more evolved form in oscillation accelerates evolution in less evolved forms and the former may thus be interpreted as one driver of evolution in these forms.

Body forms (species) in the chain of soul oscillation will depend on strength of entanglement between species which, on larger scale, may generally be reflected in some form of symbiosis.

### 4.2.1 Memory of soul's past lives

Soul memories must be imprints in space on a specific scale (a *sub-space*, such as time). I assume that the ability to read such memories depend on the strength of the imprint, its distance in time (space) and nature of the individual.

Possibility for conscious retrieval of such memories should be highest for introverted species while for extroverted ones some possibility of unconscious retrieval might exist if the brain is isolated from external stimulation (eg. during deep sleep).

For extroverted species, most of this reading likely happens during embryonic (introverted) stage of development when the information might be used for the formation of instinct.

Possibility to retrieve sequential images (*trailers*) of events drops with age and at adult stage may be generally negligible or limited to moments of high impact.

Here, I assume memories are effectively sorted (natural selection having a role) by impact on consciousness. Therefore, even though generally memory capacity might operate on FIFO basis, the operation is fragmented into separate energy levels (corresponding to impact), especially long-term memory.

Primary candidates for such memories are moments of death in past incarnations (retro-visions). However, although it is very flexible, the brain might have some problems interpreting and rendering such information.

I hypothesize that a dream has some possibility of being a retro-vision if it has the following characteristics:

- characters are unknown - do not exist in current life of the dreamer (although this is not a requirement - depends on the brain pattern storage, matching and correlation system, some personalities and experiences could be mapped to familiar characters and environments in the current incarnation),
- dreamed event is the one which would leave a strong imprint (traumatic experiences, death, generally),
- dream is interrupted not at the moment of death, but shortly after the soul leaves the body (not a requirement, may imply exchange of information with the dying brain for a short time after, or during, decoupling),
- blank visuals (due to brain's inability to match information with experience in current incarnation),
- strong feeling of a different identity in the dreamed event.

Dreams may be generally mostly correlated with life in the current incarnation, but there is a possibility that they are also an interpretation of experiences in past lives of the soul - only mapped to [or rendered as] familiar characters and environments in the current incarnation simply because the way brain operates. Otherwise, how are they produced?

One can consciously produce mental images of non-experienced phenomena (imagine things) while awake, but dreams are not produced consciously. I find it likely that these memories have been originally experienced consciously by someone somewhere, they might have just evolved and corrupted since that time. The corruption would then be correlated with polarization of the individual.

Out of body experiences and dreams of past *post-mortem* moments seem

to imply that a soul has an audio/visual system of its own, but this is not necessarily the case.

Death cannot be absolutely instant - it must be gradual. That is why every lifeform is a composition of multiple lifeforms.

Human organs (introverted organisms), for example, do not all fail (die) at once, simultaneously.

First, the human being as a distinct lifeform dies, but the *brain being* might still be alive shortly and the soul still coupled to the brain. Once the brain dies, the soul might still be coupled to some smaller organism within the brain. The life continues collapsing through smaller and smaller organisms until it is small enough to *float* away from the body.

But even at that point, as human experiences suggest, the soul could still be *entangled* with the original body and, in that case, the human being can be revived as a distinct lifeform again.

Thus, it is not necessary for the soul itself to have any audio/visual systems, it only has to have memory.

In fact, if the collapse to naked soul is not complete before the soul is coupled to another body, it is not required for the soul to have even memory - although CR implies it does.

With complete relativity, the question is not whether one has a soul, rather, which organism will be interpreted as the soul?

One could then introduce orders and even interpret the brain as the soul, of 1st order - in example.

## 5 On affinity in soul-body coupling

If coupling of bodies and souls is understood as symbiosis (even if asymmetric one) there must be some affinity of the soul toward certain characteristics of the body.

If coupling occurs at [or about the] time of conception, these should be the genetically encoded characteristics.

And these characteristics should be more or less shared between different incarnations (difference should, due to evolution, change with time).

As the primary soul is the soul of a brain (at least in species where brain is the major *maestro*), it is the brain [correlated] DNA sequences that should have biggest priority in soul-body coupling.

Other affinities may be weaker or indirect (in example, coupling with a



bigger brain might indirectly result in coupling with a less pronounced body of the individual - or indirect coupling with a specific metabolism).

Strong affinity is also likely to be present toward characteristics of fluids in the brain such as blood type (in humans, about 20% of blood is pumped through the brain[45]).

The level of affinity, in general, could be determined by evaluating necessity of survival of specific organs for the survival of distinct individual consciousness, however this is also likely to correlate with distance from the primary organ (brain).

Some species have multiple brains (even in humans, the enteric nervous system formed by nerve cells lining the gastrointestinal tract can be interpreted as a second brain[46]) and different organs may have brain equivalents on their own. This is not surprising if organs in an organism are post-cursors of symbiosis of different organisms, it is however, expected that apart from the primary brain where distinct individual consciousness is located other brains will be subdued.

There are, therefore, multiple souls in a body of an individual organism, differing by the amount of consciousness and, by evaluating affinity of the [primary] soul toward specific organs, one is also evaluating affinity of the primary soul toward *secondary* souls.

In some species, distinct consciousness of the individual may be low and brain might not be a vital organ required for the survival of the body and its ecosystem.

Leeches, for example, have many roughly equal brains (at least between the head and the tail brain). In such cases, with death of a primary soul, secondary soul could become primary. However, if differences between brains are low, competition (or lack of proper leadership) could decrease the lifespan of the collective.

Brain (at least as we know it) is not necessary for soul/body coupling though.

Sponges, which seem to have lost the brain over evolution, still have genetic components of synapses[47] (post-synaptic density or PSD proteins) so [with affinity to particular DNA] souls are still coupling with these animals, even though their consciousness (strength of coupling) on that scale is low and decreasing from larval stage to adulthood.

But not even these are necessary for soul/body coupling. Microbes, fungi and plants also have some consciousness and in these cases, soul is coupling to DNA that may have nothing to do with a brain. Perhaps the reason why some fungi tend to occupy [and take over] brains of other animals is to increase their own consciousness on this scale (coupling or entanglement with the body of *matter*) - even if they are doing it *unconsciously*. In that case, soul of a fungi is, after all, coupling with a brain, albeit indirectly in time.

It seems that, if there is no affinity of souls toward brains in space, there is in time.

Even if they don't have brains on their own - microbes, fungi and plants

do work in symbiosis, forming functional neural network equivalents[48]. Why? Unless they all form a part of a larger [extremely introverted] organism whose consciousness is mentally affecting these, guiding them to form its own synapses (see definition of life in CR).

By comparing these synapses with our own one can learn that this is a symbiotic relationship - our brain cells don't consciously exchange information to form (or mirror) our thoughts, it benefits them as well. The activity of the brain is thus a synchronicity of physical and mental activity.

Destruction of forests might be decreasing consciousness (and increasing probability of death) of the planet and could certainly be interpreted as a disease working against the planet, however, as I have hypothesized elsewhere, this is likely just a part of its development process - extinction of life is limited to surface and any *synapses* on surface are probably just precursors to real synapses that would exist deep below the surface.

However, planting trees (sustainably) and working for the planet (living in symbiosis with) rather than against it should lead to long-term benefits (as it does for microbes, fungi and plants) - even though one may be mentally guided to do so.

### 5.1 Vertical affinity

A soul may change vertical energy level, when it will couple with different species of the body. In fact, I hypothesize that (since both, *massive* photons and neutrinos should oscillate) soul oscillates between different species regularly and it will have affinity toward specific characteristics of species - most likely mass (energy), or number of cells/atoms.

Irrational fears, *misplaced* instincts and unusual dreams could be interpreted as evidence of vertical (inter-species) soul oscillation.

## 6 Maestro coupling, supernova interpretation

It was previously hypothesized that a soul that could be identified as the soul of a particular body (ecosystem of a living being) is coupled to that organism from the moment of conception.

However, alternative interpretations exist.

The probability for soul-body coupling is probably inversely proportional to mass difference between the body and the soul and if possible soul mass eigenstates are quantized (as hypothesized) and if coupling capacity is limited (as hypothesized), the larger souls (eg. hypothesized maestro souls or souls of organs) may be coupling with an organized collective (eco-system of particular scale) only after *critical* mass is reached.

In that case, consciousness of that collective is not gradually increasing from conception, it is rather inflated relatively instantaneously once the mass correlated with a stable eigenstate is reached, enabling coupling with the appropriate soul.

Note that this is effectively equivalent to original interpretation (soul coupling from conception), assuming that jumping between discrete energy levels occurs with *critical* mass.

Both interpretations are possible, and sometimes the soul will precede the body (*dark matter* can be interpreted as one evidence for that), sometimes vice versa.

The original interpretation requires inflation from a constituent atom (already coupled soul), this one does not.

But the mass cannot be the sole reason for coupling, at least not for high probability of coupling. It was hypothesized that, effectively, genetic imprints are strongly correlated between souls and bodies.

Therefore, in this interpretation, the coupling would occur once sufficient self-similarity (soul-similarity) is established.

Note that in CR, it was established that aligned or anti-aligned correlation is what effectively creates attraction between phenomena. As distance in correlation decreases the probability for coupling increases.

A soul of the larger scale may however be the result of a collapse of a collective of smaller souls into superposition (supernova type events).

Note that, in CR, supernova type collapses are not scale limited, which is evident with bosonova events in boson condensates.

## 7 Demystifying genetic affinity and information transfer between incarnations

Previously hypothesized genetic affinity for body-soul coupling can be interpreted as entanglement between dying and forming bodies.

One of CR postulates is that everything is entangled at some scale (physically correlated). If genetic code between a dying body and a forming body is similar, collapse of entanglement with death could effectively transfer information from a dying body to the forming body. But if this collapse is physical, what particle is transferring this information, if not one that could be interpreted as the soul?

At some scale, this information is not elementary and can, due to self-similarity, contain a lot of data on the deceased, which, once the soul inflates

(once the mechanism evolves that can read it) can be transferred to local system.

Evidence for this transfer exists[49].

Note that soul is, per the hypothesis, oscillating in mass and therefore coupling with different species. The same information may be interpreted somewhat differently at different scales (in different species), and, obviously some data will be overwritten, but non-correlated information can be transferred between individuals of the same species even with an intermediate incarnation in different species.

Consider different brain sizes between species and brain layering. Likely, the information stored with conscious operation on smaller scale will be imprinted on larger brain in a layer correlated with deeper consciousness (subconsciousness) leaving shallow levels untouched by that incarnation.

This has an interesting implication - if human population is increasing and probability for intermediate coupling is decreasing, will that population be losing subconsciousness?

Decreasing biodiversity is also decreasing candidates for intermediate coupling and without deeper layers of subconsciousness, the consciousness is reducing to awareness and short-term operation. Large brain size then becomes unnecessary and should be decreasing (evolving regressively), ironically [from some reference frames], into species that were lost (as expected with karma).

Some claim human brain has been decreasing in size for the last 50,000 years[50].

Interestingly, this can be correlated with megafaunal extinctions between 50,000 and 10,000 years ago[51].

Extinction of large animals was followed by extinction of smaller animals in last 10,000 years.

Diverse operation and complexity is correlated with intelligence, if universes are self-similar and living diversity and complexity is decreasing in human environment, is it surprising that it is decreasing inside humans too?

If human brains and intelligence are decreasing in general for quite some time, intellectual achievements have probably been increasingly driven by sub-species of humans whose intermediate species in soul oscillation include species with a larger brain (eg. whales). More so if these are neutral souls.

Thus, I must conclude again that, whales are more intelligent or more conscious animals than we are.

About 1.5 million whales left compared to almost 8 billion of humans with decreasing intelligence and increasing growth doesn't spell good news for the future of intelligence on Earth's surface.

The whales are not as hunted as they were and may be generally recovering. This should then be correlated with transformation of consciousness (exchange of electro-magnetic soul potential for gravitational) in human individuals, which would lead to eventual recovery of diversity - if the growth rate of human population is and stays lower than growth of whale population.

However, with current human population growth of 230,000 individuals per day and whale population growth rate of probably not more than 23,000 per

decade, higher intelligence will hardly be expressed here before polarization here goes extinct.

## 8 Correlation with the Standard Model

I have hypothesized that coupling of souls (gravitons) and bodies is synchronized with mass oscillation of gravitons. In one interpretation, the coupling is giving mass to the soul.

Since uncoupled souls travel at the *speed of light* ( $\approx c$ ), this seems similar to the Higgs mechanism of the Standard Model. However, there are significant differences.

In CR, particle mass is never absolute 0 - which would, by the Standard Model, imply that coupling is intrinsic (and thus no particle can ever exceed the speed  $c$ ).

In CR, the speed  $c$  depends on properties of space (pressure/density) and can be treated invariant to scale only if units of space are accordingly treated as variable (proportional to scale).

Absolutely massless particle in CR would travel at infinite speed. However, *static* particles such as uncoupled gravitons here could be treated as massless relative to the space they're part of.

While Higgs mechanism is connected exclusively to rest mass, here coupling involves transfer/transformation of multiple components of momenta. Gravitons here are quanta forming space of a graviton of a larger scale and that space could be interpreted as a gravitational field, which, unlike Higgs', is not a scalar field.

Assuming the large scale graviton is of scale  $U_n$ , small scale uncoupled gravitons forming its space are of  $U_{n-2}$  scale and they are coupling with bodies of  $U_{n-1}$  scale. The  $U_{n-2}$  gravitons are quantizing the gravity of the  $U_n$  graviton. However,  $U_{n-1}$  and  $U_{n-2}$  gravitons have their own space quantized by smaller scale gravitons similarly. On each scale there are different generations and species of gravitons with range inversely proportional to mass. This produces a [relative] continuum even though discrete energies are involved.

Since the number of gravitons on any scale is finite, the space of any has relative capacitance (capacity for coupling).

## 9 Conclusion

The Ockham's razor states that the simplest solution is almost always the best. Nature almost always *adds* that one solution solving diverse problems is better.

For a *theory of everything* the number of scales sharing the solution is proportional to its completeness. This work is based on one such theory and a vivid demonstration of its power.

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