

## Holomorphosis: Understanding nature's self-transformation of darkness into the light of consciousness

By Theodore St. John, MA, MS, PhD

### I dreamed a dream

Physics was exciting in my undergraduate years (1980-1984). As a physics student I learned all of the rules and laws and was proudly able to understand relationships that predicted the outcomes of interactions. As an engineering student (dual major), the basic Euclidean and Cartesian models of space and time gave me something finite and solid to grasp with my hands as well as my mind. As a musician and artist, I romanticized physics. She was beautiful – full of symbols, pictures, movements and plots; she made music by combining resonance with dissonance; she painted with colors and used the contrast between light and dark to show me the beauty and elegance of nature. She spoke of forever and made me believe that she had the potential to explain the *infinite, eternal essence of reality*. Through her artistic symbols, she gave me answers to mysteries and encouraged me to test them for myself. I trusted physics and I loved her.

I dreamed of being a great physicist some day, but I thought that engineering was a more pragmatic way of contributing to society. To me, physics is much more than the study of motion, particles and forces; it's more like art, music or even theology. True, it provides the foundation for practical physical sciences like chemistry, biology and engineering. But it has also given me a way of understanding the origin and underlying essence of reality. To me, physics is the study and search for Truth and Truth, to me, is the meaning of the word “God”. But I'll stick with symbols from physics in this article.

My perspective on physics is unlike any other physicist that I know. In fact, I agree with author Jim Baggott in his book, *Farewell to Reality. How Modern Physics Has Betrayed the Search for Scientific Truth* (Baggott 2013). Specifically, I think that the fantastic (or “fantasy” in his words) theories that have come out of modern cosmology, like the Big Bang, black holes, worm holes, etc. are ridiculous. He said:

*With no observational or experimental data to ground their theories in reality, these theorists have been guided instead by their mathematics and their aesthetic*

*sensibilities. Not surprisingly, ever more outrageous theoretical speculations freed from the need to relate to things happening in the world that we experience have transported us to the far wild shores of the utterly incredible and downright ridiculous.*

In my search for Truth, I have found that the key to a rational understanding of reality is not out in the distant reaches of the universe, but at the foundation of physics – where the concept of infinite potential meets the concept of a finite quantum. That is why this article is posted at The Apeiron Center website, a philosophical organization “that studies the idea of infinity in intimate contact with the finite”<sup>i</sup>. This transition point has acted like a twist that misdirects the reader and adds suspense in a good mystery. But this is much more serious than a mystery novel. We are part of this mystery and it has turned into a tragedy, which is partly why the title for this section is the theme song from the movie *Les Misérables*.

The twist in physics is more like a snag and theoretical physicists who specialize in this area admit that they are stumped (as Lee Smolin explained in his book, “The Trouble with Physics” (Smolin 2006)). But I know that you can’t find solutions by using the same tools that created the problems, so I’m not criticizing. Symbols and concepts are the tools of physics and one of the tools in physics is the concept of time. But what is time? According to Smolin, in *Time Reborn: From the Crisis in Physics to the Future of the Universe*, “This deceptively simple question is the single most important problem facing science as we probe more deeply into the fundamentals of the universe.” (Smolin 2013). He doesn’t answer the question, but instead says that time is real. By that he means,

*Whatever is real in our universe is real in a moment of time, which is one of a succession of moments. The past was real but is no longer real. We can, however, interpret and analyze the past, because we find evidence of past processes in the present.*

That may be true, depending on your definition of “real”, but it doesn’t explain the *meaning* of time, which is what I intend to do. I found a simple interpretation of the meaning of time, which I will explain in this article.

The second reason for the title of this section and the basis for my perspective on reality is that I had a dream-like vision that came to me like an epiphany in the Fall of 1992 (T. St. John, Journey back to Unity 1995). I had been obsessed with the desire to understand how the speed of light could be constant regardless of the speed of its source and of the observer. It didn’t make sense to me. I had my undergraduate degree in physics, so I knew the textbook description of the problem, but it was not an explanation. One day, while I meditated on it, I suddenly felt my consciousness being elevated upward out of the top of my head. I completely lost any sense of my body and... I just *was*... a point of consciousness in an infinite (nonfinite) domain of darkness. But I could see a sphere of light on a pitch-dark background of nothingness and I realized that the sphere of light was an image of “my reality”. By that I mean it was the energy pattern of information (my entire universe) contained in a single sphere in space-and-time – over “there-and-then” and I was in absolute stillness as a point “here-and-now”.

I had separated from it and could see it as if I was looking at the outside screen of a spherical IMAX movie. But I didn’t see any recognizable images, just an amazing sort of glow. When I focused on the center, it looked like a tunnel of light, as I have heard it described by people who have had near-death experiences. I felt a tremendous sense of love and would have loved to “go into the light” but was too stunned to think, or try to move toward it.

Looking back at it now, I feel like my life (or perhaps all of my past lives) would have *flashed before my eyes* if I had looked more closely, because all of the events of my past seemed to be there, like concentric spheres packed in the center of the outer sphere. So I didn’t see events laid out in a linear stream, but somehow things all fell into place and *made sense*. By that I mean that the energy pattern actually *made something* – *created something* – a “sense” that we call “insight”. In other words, all of the information that I had experienced in my life coalesced into a single sphere. But in order to get meaning from it, I had to see it from different perspectives. It reminds me of an

autostereogram, a single-image stereogram designed to create the visual illusion of a three-dimensional scene from a two-dimensional image<sup>ii</sup>.

I won't go into it here, but I can imagine how frightening it would have been if it was filled with a lifetime of untruth, pain and denial. I could see how someone could get stuck in that "place" if they feared the truth. I have always considered the word "God" to be synonymous with the word "truth", and I yearned for it *like a person whose hair is on fire yearns for water* (borrowing a phrase from Sri Ramakrishna).

Because of my physics education, I can best describe it as a holographic projection, a finite pattern of energy, like the nucleus of an atom and my point of consciousness was like an electron in a highly energized state – still part of the whole, but separate so I could look inward at my non-physical "true self".

In the absolute stillness, there was no sense of time as I had always experienced it. I suddenly understood four-dimensional space-time because the sphere was three-dimensional (left-right, up-down, back-front) and the fourth dimension of time was inward-outward. "Now" was the outer-most shell and my past events were concentric spheres the inward direction. My future was unbounded potential – this "God's eye" view that I seemed to pop up into – the infinite domain of dark energy that was yet to be transformed into the next layer as this expanding light of consciousness.

I realized the answer to my obsession about the speed of light being constant: it is not the speed of light that moves, but the speed at which darkness recedes or transforms into light. Recently, I heard this quote on an episode of Criminal Minds (TV series)

*Light thinks it travels faster than anything but it is wrong. No matter how fast light travels, it finds the darkness has always got there first, and is waiting for it.*

– Sir Terry Pratchett

I realized that darkness is just *undifferentiated* potential energy and that a vibration is *differentiated* energy (the duality or pair of opposites) that forms the basis for information (1's and 0's, +'s and -'s, ups and downs i.e. dimensions, etc). In the light of information, darkness disappears, replaced by different shades (intensities) and colors (frequencies) of light. Reality itself is ubiquitous motion – a transformation process – and

the rate of the transformation is the same regardless of whether the light source or the observer (reference frame) is moving or *seems to be* at rest.

### **The constant trance**

That's the twist – the catch that traps the mind in an artificial perspective; our physical senses and measurement devices “capture” units of motion and thereby *perceive* things as being at rest. We fool ourselves into believing it yet we know that in the greater scheme of things, there is *no such thing* as an object at rest – having zero motion – because you can always find some other moving reference frame to measure it from. I call it an “artificial” perspective rather than an illusion because it is not an illusion. It is simply the “constant perspective” or trance created by the dynamic process. The process (or *change* in the words of Greek philosopher Heraclitus) is fundamental – the source and motivator of space or time – and there would be no perspective at all without it. The process – the life process – is what is natural; the “constant perspective” is artificial. Life does not emerge out of matter; matter is the byproduct of the life process.

We become entranced by what appears to be constant and unchanging because every time we look at it, it appears to be the same. It's like looking at a spinning propeller, for example, illuminated by a stroboscopic light. It *appears* to be standing still because each flash of light happens when the blades are at exactly the same position as the last flash. What you see is what you get, but the problem is... what you see is *not complete*; it's not the whole truth. It's not a lie or an intentional misdirection by some kind of evil being. It's just a *misconception* of reality that stems from a *misperception* of timeless energy (T. St. John, Timeless Epiphany 2005). It's the tragic flaw that stems from our inability to see how information energy transforms into actual particles that make us what we are. And it is vitally important to our survival that we come to understand and learn how to see the whole truth.

If we don't, we might walk right into the “spinning propeller” (self-destruct).

### **Breaking the trance**

So how do we break the trance? If everything is actually in motion but some things appear to be at rest, **how do we reconcile the obvious difference?** First, we have to allow discussion from both physics and philosophy in a single setting. To paraphrase Einstein:

*Physics without philosophy is lame; philosophy without physics is blind.*

We need to finish the revolution of modern physics that started with the theory of relativity, and became snagged on the *Copenhagen Interpretation* of quantum mechanics. We need to go the final step to the next level and understand how the dynamic form of energy (the truth) is transformed into static form (the artificial perspective, appearing to be at rest). That transformation is what I call “holomorphosis” and that is why this article is posted at the Apeiron Centre website – because the metamorphosis happens where our perception of the finite meets that of the infinite. (“Apeiron” is a Greek word meaning “that which is unlimited, boundless, infinite, or indefinite”)

The word “infinite” is part of the problem. Can anybody really imagine infinite? The word brings to mind something that is astronomically big, far, far away in space or forever in time. Does it really have a place in science, (or even cosmology) or is it purely philosophical? Is it more scientific or more meaningful if it’s called a singularity? What I have found is that it’s about *the boundary between the bounded quantum and the unbounded*. Focusing on the boundary is the key; it’s what will demystify the concept and help unravel the mystery. Infinite is boundless, so it’s not finite; not huge or very long; it’s *nonfinite*. “Infinity” is not a real place or time; it’s just a word that refers to that part of a scientific scale that cannot be reached or measured, in contrast to finite units that we actually use in practice.

The word “potential” refers to the unlimited undifferentiated energy of the universe. In physics it’s an energy term divided by the distance between two particles. So if distance is equal to zero, the potential is infinite, ergo unlimited energy. This is one of the singularities we have to ignore in physics. But it’s not a problem because when it is multiplied by units of space, the denominator cancels out. We call that “potential energy”. It was once acceptable in physics to imagine that there exist tiny charged particles called electrons that orbited a much tinier bundle of particles called protons and neutrons. That was the classical model of an atom.

However, the more advanced, more successful quantum model says that electrons don’t even exist, except *in potentia*. In other words, there is nothing but pure formless

energy that has to be observed in order for it to take form. That means it has to be measured by some other particle that interacts (which requires relative motion) to “collapse the wave function”. So relative motion, whether it is the motion of your body relative to a passing car or the orbital motion of an electron around a nucleus, transforms the undifferentiated potential energy (i.e. nonfinite “darkness”) into finite, differentiated vibrational energy, which is in the form of information (Davies and Gregersen 2010). It *affectively<sup>iii</sup>* materializes as sensible (or rather *sense-able as a solid, liquid, gas, etc.*) “physical projections” that we call quantum particles.

In other words, the physical form of matter is literally a constructive-destructive interference pattern or projection-reflection process, which I will show to be exactly like the process that makes a hologram. But there is no need for a preexisting holographic plate somewhere out at the “edge of the universe”, as proposed by some physicists (I’ll explain later), because motion (and what I call the “holomorphic process” (T. J. St. John 2018)) is ubiquitous throughout the universe. In this sense, motion means *motivation*, which can apply to any object, even one that appears to be at rest.

### **Hypothesis about the meaning of time and spacetime**

In basic physics we are taught that time is an independent unit that is fundamentally different than space. You have to treat it that way in order to use the classical models, to calculate anything dealing with motion, like speed, trajectory, temporal frequency, etc. Then in relativistic physics we are told that space and time are two integral parts of the same *thing*. But as far as I know, physicists don’t know what that “thing” is.

They call it “spacetime”, a complex mathematical mixture of 3D space with 1D time:  $x^2 + y^2 + z^2 + (ict)^2 = 0$ . This is just the equation used to represent an expanding sphere of light ( $R^2$ ) with a radius that can be written in two ways, as  $R = \sqrt{x^2 + y^2 + z^2}$  and as  $R = \sqrt{(ct)^2}$ , (where  $c$  is the speed of light and  $t$  is time). The two spheres (two versions of  $R^2$ ) are set equal and the term  $(ct)^2$  is subtracted from both sides, so it becomes  $x^2 + y^2 + z^2 - (ct)^2 = 0$ . Finally, the negative sign is made positive by changing it into the square of imaginary number  $+i^2 = -1$ . The result is the 4-dimensional spacetime equation. It is all valid algebra that is then used to produce the

field equation in general relativity, where things get even more complex, but I still don't think that anyone really knows what "spacetime" *means*.

An unindoctrinated student (and unconvinced graduate: that's me) might try to say that spacetime is just motion (my hypothesis) because motion, which is the measure of a change in spatial position per unit time, is something that already has "space and time as two integral parts of the same thing". But I would be corrected and accused of not understanding basic physics, because motion already has a place in physics; it's called speed, and speed is *reducible* to a measure of space *divided by* time.

The fundamental *snag*, and one of the "troubles with physics" (as pointed out by many physicists including Lee Smolin) is that we don't even really know the meaning of "time". The most recent attempt to explain the meaning of time that I have read is by another professional physicist Richard A. Muller in his book, *Now: The Physics of Time* published in 2016. It was interesting to read, with a whole lot of discussion about free will and the problem with understanding time as an increase in entropy. But in the end his conclusion (spoiler alert) was this:

*Now is that special moment in time that has just been created in the expansion of the 4D universe, as part of the continuing 4D Big Bang. By the flow of time, we mean the continual addition of new moments, moments that give us the sense that time moves forward, in the continual creation of new nows.* (Muller 2016, Loc 4281)

I don't disagree, but in my opinion, this just replaces the word "now" with the phrase "new moment" created by something else we don't understand called the "4D Big Bang", which he summarized in the following:

*"Just as space is being generated by the Hubble expansion, so time is being created. The continuous and ongoing creation of new time sets both the arrow of time and its pace. Every moment, the universe gets a little bigger, and there is a little more time, and it is this leading edge of time that we refer to as now."* (Muller 2016, Loc 4097)

To me, that just says the 4D Big Bang is the 3D Big Bang plus time. Again, it doesn't explain anything.

**I submit as my hypothesis, that spacetime is *the essence of motion* and time is nothing more than a way of capturing the essence (i.e. a *measure of motion*).**

I submit the hypothesis, but not as an original idea. However, I will illustrate mathematically that spacetime is what Aristotle considered *real motion* named "locomotion" (Odzuck 2016) and David Bohm called "holomovement" (Bohm 1980). Isaac Barrow (1630-77), Newton's predecessor at Cambridge, was quoted in E. A. Burtt's book (originally published in 1924), *The Metaphysical Foundations of Modern Science* (Burtt 2003) as follows, "[He] takes up the question how, if the measure of time be thus dependent on motion, time may itself be, as defined, the measure of motion." Aristotle considered time as the *number of motion*. I think that understanding these concepts is the key to understanding how that, which *seems to be* metaphysics (defined as "abstract theory with no basis in reality") is actually physics.

### **Proceeding like clockwork**

Some say that time is an illusion and others say it is real. We think we measure time so it must be real, but what do we actually measure? A clock just *displays* change – *energy in the form of motion* from one tick mark to the next, in space. Each "tick" of the clock (1 "second" could be called 1 "tick - o'clock") is a *reflection* of clock-hand motion. So that's what is measured: a *reflection* of motion in space. Physically, we experience change and metaphysically, or mentally *reflect on it*. We experience change and it feels real, so we remember what it *feels like*, ignore the fact that the memory is *imaginary*, accept it as being a real quantifiable unit, an independent variable, and give it the name "time" and a measure, like a "second", "minute", "hour" or "day".

But anything that repeats itself in constant intervals or exhibits harmonic frequencies can be used to mark time and thus be named "a clock" even if we can't see the movement in it. A circular clock just allows you to confine the motion to a finite unit of space. A quantum unit of energy (a photon or a quantum particle) that confines non-visible motion to a finite unit of space could also be considered a clock. The non-visible,

non-finite, *real* motion or holomovement, is energy as a whole, which becomes finite in the holomorphic process.

This is easily revealed by separating  $R^2$  (from the expanding sphere of light mentioned above) into two *seemingly* different components, ( $R^2 = R \times R'$ ): one is an obvious measure of space ( $R = \Delta s$ ), and the other *contains the essence of motion* as *spatial* frequency ( $R' = \frac{1}{f}$  so  $f = 1/R'$ ), which is one complete revolution divided up into “ $f$ ” number of equally spaced subdivisions. The number of divisions (“ $f$ ”) is irrelevant. A clock has to be calibrated to one unit; the smallest whole counting number.

For example, a 24-hour military-time clock is calibrated to move its hand one complete revolution to correspond to one revolution of the Earth (apparent motion of the sun), called a “day”. So it is made to *mirror the movement of the sun* but collapse our experience of that motion into a much smaller unit called a clock. The clock is then made to transform the motion of the hand into a single unit of sun-motion experience we call one day.

But the sun isn’t the only apparent motion happening in a day. Fortunately, the clock can be converted to any number of other frequencies you want just by subdividing the face and adding labels at equal increments. The numbers already printed on it from the factory divide it into 24 *length-units* so that frequency is  $f = 1/24$  revolutions per length unit. In order to make this a time-measuring device, everyone had agreed to use the proper terminology – to translate what they see in space into the accepted language: one complete revolution in the space of the clock is called one “day” and each individual unit is called one “hour”. Then each hour is subdivided into 60 smaller units and each one of those is subdivided into 60 tiny units. We are taught to call these “minutes” and “seconds”, which are all just different *numbers of motion* as Aristotle called them.

Collectively, the units are categorized into a special group of units: inverse-length units that have been *processed* and renamed “time”. There’s no mystical or magical transformation going on. But if metaphysical means that it involves concepts that can’t be measured, then yes, it is a very simple metaphysical process. The essence of motion is just *collapsed* or *contained within an inverted unit of space called a unit of time*.

Continuing with the mathematical proof: The unit of spatial frequency is the mathematical inverse or reflection of space, and it is what we call a reference unit or

category of motion called a unit of time. So we just change the  $f$  to  $\Delta t$ : ( $\Delta t = 1/R'$ ), where  $\Delta$  symbolizes “one unit” and  $t$  symbolizes the scale (in physics we call it a scalar quantity). The proof that spacetime is just motion-in-disguise is that the product ( $R^2 = R \times R'$ ) of the actual measurable distance that the clock-hand moves through space ( $R = \Delta s$ ) and its own reflection, ( $R' = 1/\Delta t$ , which is just a different label for  $R$ ) is the classical, *rational* quantity (a ratio) we know as speed, the magnitude of velocity ( $|v| = \Delta s \times 1/\Delta t = \Delta s/\Delta t$ ).

That’s a unit of motion! And since it is a ratio, it doesn’t matter how big or small your clock is; one finite unit is one finite unit. So it is *scale invariant*.

### Real and Imaginary: They both actually exist

What does it mean to say that the essence of motion is collapsed or contained within the unit of time (spatial frequency)? It means that the “unit” ( $\Delta t$ ) *contains information* collapsed within itself, in the same sense that 3-D anatomical information is collapsed within a 2-D photographic, X-ray, or holographic film. Once collapsed, it doesn’t change. It just *exists* convoluted (or mathematically “convolved”) with the 2-D space on the film.

This is extremely important because it means that a unit of time is as “real” as a unit of space. In fact, it is the same thing as the real unit of space, except that it’s a view from the opposite direction and specified with only one dimension. In other words, three measurable, finite dimensions are collapsed into one non-measurable, infinite dimension with a finite name, “ $t$ ” for “imaginary”. So the word ”real” actually means *it exists and it’s measurable* and “imaginary” means it exists but it’s not measurable. In essence, information is printed on the inner surface of the transparent sphere and must be viewed from the center of the sphere to make sense.

The reason it is so convoluted is because, by observing motion with respect to time, we *artificially* separate and *divide* space-time into real 3-dimensional units of space, which already has a fourth dimension (inward-outward), so when it’s observed, spatial frequency information (time) immediately collapses into a 1-dimensional unit in the smallest possible increment. Since it can’t un-happen, it can’t be un-collapsed, so it creates the apparent flow of time.

Imagine a physical quantum particle as a sphere of light with an imaginary surface expanding into the darkness. A measurement can be thought of as giving the surface its substance by separating it into a projection and a reflection:  $R^2 = R'^2$ . The term  $R^2$  is the real, positive unit *projected* in real physical space (a sphere described by  $R^2 = 1$  that has a real measurable diameter, measurable from the outside) that gets relabeled as the scalar unit of space,  $R = \Delta s$ . (This is like Plato's analogy of reality as a shadow projected on the wall of a cave and what Aristotle called progression or generation). Then  $R'^2$  is a *reflected* (mirror image) negative unit like the negative of a photographic film. It can be symbolized but not measured because  $R'^2 = -1$ . Effectively, the measurable unit is an outside perspective of a real light sphere, so this reflection is just a view from the center point of the same real sphere, from inside looking out of "Plato's cave". This is what Aristotle called regression or destruction. It is no less real in terms of its existence, but since you can't "wrap your arms (or any other measuring device) around it", it can't be quantified by a number. Instead, it needs a new name, a symbol that can be quantified as 1 unit. Mathematicians decided to call it The Imaginary Number,  $R' = \sqrt{-1}$  labeled "*i*", but it wasn't widely used until the 18<sup>th</sup> century.

It is very important to understand that *units of time are created by observation and don't cease to exist* so any and all of the information that they contain remains collapsed – morphed and stored in the universe-memory (and thus the universe is effectively a holographic quantum computer). The collapsed units exist but we can't see or measure them so we think they can't affect us. *But they do affect us in the most profound way*: they modulate and in-form the 3D form(s) that we experience as physical reality. Collectively, they form the collective pattern of events that actually happened, i.e. "Truth", which is what most would call the "past".

Recall that once collapsed, a unit of time doesn't change. It just *exists* convoluted within the 2-D space, like photographic film. So in order to extract the information, it has to be de-convolved using a back-projection and reconstruction algorithm. That is exactly how a CT scanner works. A CT requires at least two perspectives, both of which contain the same information from different (but not just opposite) perspectives collapsed onto its surface. For the purpose of understanding the mind-body system, I would consider "insight" to be a memory-reading algorithm, which is also just a pattern of information

that evolves via the life process. The more perspectives you get, the better the fidelity of the reconstructed image.

Opposite perspectives intensify the image but don't provide the depth information necessary to reconstruct the anatomy. However, when two reflections are superimposed, the product becomes real and it becomes negative ( $i^2 = -1$ ) so it needs to be taken into account. Like a paradox, it provides a clue that tells you are looking at things from the wrong perspective, either backwards or inside out. Although this may not apply to a CT scan, it applies to life.

### The Holomorphic Universe

In 1991, Michael Talbot published "The Holographic Universe" (Talbot 1991) in which he explained the proposal of neurophysiologist, Karl Pribram and physicist David Bohm, that the universe may be a giant hologram. He said, "*We are part of a universe in which individual brains are actually indivisible portions of the greater hologram and everything is infinitely interconnected.*"

Then in 1995, physicist Leonard Susskind presented a paper, "The World as a Hologram" (Susskind 1995), in which he used elements of string theory to suggest that if the universe is a holographic projection, then the information that would be needed to produce the projection might be located and stored on the surface of a black hole, which would serve as a sort of "holographic film". One problem with that (besides action at a distance) is the same as all of the other creation theories – it ignores the question of who or what made the black hole or "the holographic film" and the follow-on question, "What created *that* creator?" It just assumes that the information is there and doesn't any rationale for how it got there or how it updates.

This paper summarizes the rational explanation of a self-creation process and a basis for a new branch of science, called Mind-Body Physics.

Body and mind both exist. The body is real and thus finite whereas the mind is imaginary and infinite. The quantum particles that make up our physical form are snapshots of information structure<sup>iv</sup> characterized by spatial frequency. Information is a pattern that simply modulates the frequency of the energy that is already there. Once an event happens, it can't un-happen, so it collapses within the center of every quantum particle in the vicinity of the event. There, it acts as a holographic "fringe" resulting in

the holographic nature of our brains and DNA molecules (Bohm 1980) (Pribram 1984) (Talbot 1991). If that is correct, then a computer algorithm could be written that back-projects and reconstructs information from the recent past, stored in DNA molecules. And healthcare could be greatly improved because all of the information from all of the experiences of all of our ancestors is present in the molecules that make up our bodies.

That information is used as a self-regulating feedback system that shapes the fractal patterns, which form all biological systems. In other words, it allows for cell differentiation and adaptation, reproduction and evolution. It also allows for progressive transformations of consciousness. Each time that happens, a being's insight improves, encouraging and motivating self-control. It is able to recognize the tremendous value in participating in the life process that creates and sustains it and thereby accelerate the transformation of body into consciousness.

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<sup>i</sup> From <https://apeironcentre.org/information/>

<sup>ii</sup> See <https://en.wikipedia.org/wiki/Autostereogram>

<sup>iii</sup> Notice that I said “affectively” not to be confused with “effectively”. Affective is a concept used in psychology to describe *experience*, as it relates to *feeling* or *emotion*.

<sup>iv</sup> See <http://www.informationphilosopher.com/introduction/information/>