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Morya Federation 2023 DHY Synthetic Essay

Etheric Sevenness

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Imagine a stranger saying, "I just got back from the bank". The question is, do you picture this person speaking with a bank teller, and dealing with money? Or, do you picture them holding a fishing pole, standing on the bank of a river? The answer is, it could be either one, and

you won't know which you should be imagining until the stranger gives you more information. This is what's known as a "homonym" in linguistics - a word that has multiple meanings that are wildly different from each other. Fundamental to the task of discussing certain subjects, in particular those in esoteric teachings, is to have a discernment as to understand what is being discussed. Many esoteric subjects are what I call "ontologically homonymous", which means that a word may have an esoteric meaning and an exoteric meaning, or in other words, some may picture the exoteric meaning in their head if they hear or speak a particular word. One of those words is "ether". It is my goal in this paper to elucidate an esoteric view of the ether, but this is relevant to all esoteric subjects that share this homonymity: soul, spirit, God, reincarnation, magic, astrology, etcetera. My intended audience are those who are inclined to seek a more precise or methodological basis for understanding esoteric concepts.

The difference in goals, motivations, behaviors, beliefs, etc, between institutions, essentially can be reduced to the fact that they have different ontologies. The history of science, in particular, can be seen as changes in the status quo of ontological belief. As a result of ontology having such a great influence on philosophical movements, such as politics, it can be seen that an apparent issue of politics is often simply an issue of ontological belief. "...it must be recognized that the cause of all world unrest, of the world wars which have wrecked humanity and the widespread misery upon our planet can largely be attributed to a selfish group with materialistic purposes" (POH, 33).

In the modern and postmodern eras, some states have adopted materialism as their official ontology, or ideology, and so base their science and laws on materialist ontology. But materialism does not have to be officially adopted to have a great presence in a people or culture. While western states have not officially adopted materialism, the cultural ideology, and the science, of the west has shifted heavily towards materialism. The difference in ontological belief between philosophical movements is of primary importance, especially from the point of view of the esoteric, or ontologically monist, movements. Likewise, a monist thinker is inclined to recognize the importance of ontology, whereas materialists in particular have an inclination to ignore the subject at all costs - almost as if something is hidden from them.

Leonard Susskind, as one of many examples representing the materialist dogma of postmodern science, is a well known physicist, or mathematician, who helped create one of the leading theories of cosmology, known as the holographic principle. In a recent interview, Leonard Susskind was asked how he would respond to the numerous complaints that his cosmology assumes a materialist ontology. His answer was that he has never known what the

word "ontology" means, and would continue to ignore all such complaints. Throughout the decades he has consistently taught students to "ignore and shun all philosophical thinkers". Indeed, the essence of what gets someone fired from an academic position is to challenge materialist ontology, such as promoting ideas which have a basis in monist ontology, such as panpsychism or astrology.

As science is the gathering of empirical data, combined with analytical, or in other words, philosophical, thinking, towards the goal of understanding the objective nature of being, then one can see that science is, and originally was, a result of monist thought. "This great Life is the basis of Monism, and all enlightened men are Monists" (TWM 6). "What is the process of Becoming and the nature of Being? ...through pure reason, and through the correct functioning of the intuition these problems can be solved and these questions answered. ...The only true biologists are initiates of the mysteries, for they have an understanding of life and its purpose and are so identified with the life principle that they think and speak in terms of energy and its effects..." (TWM 16).

Only in the postmodern era has western science shifted so dramatically towards materialism. Many in academia are seeing a decline in the progress of scientific discoveries, as well as an increase in the replicability of research, despite academia having become vastly inflated with employees and material wealth. It is anticipated by many that the status quo of science will shift from materialism to monism.

“The Master Jesus is particularly active at this time along this line, working in collaboration with certain adepts on the scientific line, who—through the desired union of science and religion—seek to shatter the materialism of the west on the one hand and on the other the sentimental devotion of the many devotees of all faiths” (TCF 351).

“As the etheric substratum which is the true substance underlying every tangible form is understood, certain great revolutions will be brought about in the domains of science, of medicine and of chemistry” (TCF 4).

“Science, as we know, is fast reaching the point where it will be forced to admit the fact of the etheric body, because the difficulties of refusing to acknowledge it, will be far more insuperable than an admission of its existence” (TCF 45).

“The whole subject of the akasha will be greatly clarified as exoteric science delves into the question of the ethers” (TCF 172).

Emergence and Binding

I want to impart the consideration that this subject is not so benign, and is the basis for much incoherence in the world at this moment. Avoiding this seemingly benign mistake is a crucial part of studying esoteric knowledge, and is linked closely to the meanings of the words “esoteric” and “exoteric”. If we task ourselves with defining something like the “ether”, we should practice a certain level of awareness and discernment of the various ontological meanings of such words. Teaching about ontologically homonymous topics especially requires further details, as some students may envision a savings bank whereas others may envision a river bank. Ontology is always the basis for analysis, so it is a good practice to be aware of and accept a particular ontology as a guide for analysis.

Take the materialist concept of “emergence”, for example. Many patterns in nature are said, by materialists, to emerge from or be caused by a collection of meaningless, random, and arbitrary events within the world of physical atoms. Some of these patterns include the fractals of snowflakes, the logarithmic spirals that develop in a flower, and human consciousness. According to materialism, a pattern is merely a subjective construct of the brain which is a construct of particles bumping together. The concept called the “Binding Problem” is an acknowledgment in academia, mostly by non-materialists, of the unexplained mechanisms of brain chemistry as well as the question of how a singular, unified self, or pattern of consciousness, emerges from individual, differentiated chemicals. Monist academia, which promotes the concept of panpsychism and the accompanying idea that nonphysical forces such as qualia are intrinsic to matter, pose the question in the form of the “Combination Problem”: how do the qualia of each small part combine to make a single consciousness?

Consider the events which must take place in order for one to experience the taste of sweetness. The sweet molecule, such as sugar, enters the mouth, and upon getting close enough to a sweet receptor, the sweet molecule binds to the sweet receptor. If this happens on a wide enough scale, there is a kind of synchronization of chemical events which conclude with the sensation of sweetness. I must point out that not only is this mechanism of synchronization dismissed by materialists as a magical series of arbitrary interactions, but the more fundamental mechanism between the individual sweet molecule and sweet receptor remains completely unexplained. Perhaps the scientific spirit had a tendency to withdraw into a more materialist metaphysics as science was increasingly forced to investigate phenomena beyond the scope of perception by either the human senses or laboratory equipment - from the ontic to the ontological.

The questions posed above, regarding the mechanisms of phenomena like binding and sweetness, all have answers based on one's understanding of the ether. To simplify the discussion of the ontological definition of the “ether”, I will be comparing “dualistic” ontologies to the “nondual” ontology, monism. An ontology is dualistic if it is built out of multiple sets. In ontology, the relationship between sets is causal, or in other words, a person is thinking “dualistically” if they use a second set to explain the existence of the first set. The idea that

consciousness emerges from or is caused by atoms is a dualistic way of thinking.

Dualistic ontology leads to a logical fallacy known as infinite regression: if the second set was required to create the first set, then what set created the second set? Sometimes materialists are heard asking, "if God created everything, who created God?"; but this basic ontological argument applies to materialism with the question, "if particles are made of smaller particles, what are those particles made out of?" Basically, this signifies a failure to completely answer the question of causality. As we will see shortly, in order to completely answer the question in a way that is logically sound, what's required is a set that is able to create itself.

But first, let's discuss dualistic thinking pertaining to the "ether". In the modern era, various theories of "luminiferous aether" were proposed as an attempt to describe the mechanism of light; the "aether" was quite often described as a kind of "medium", and light was thought by many to be a "wave" or vibration within this medium similarly to how sound is a wave or vibration through a medium of physical particles. Indeed, to this day, it is widely claimed that, despite such ideas being apparently outdated, light exists as a (duality) between a particle, and a wave.

A wave is merely a pattern of movement of particles within a medium of particles, or in other words, a wave is made of particles or caused by particles. The tendency to leave a pattern of movement (wave, vibration, vortex, compression, etc) as the basis for phenomena implies a medium of particles, which also requires a more fundamental cause; this language reflects thinking that is ultimately dualistic.

What's more is that materialist academia is inclined to dismiss further investigation into the causality of waves, via the implication that waves are patterns which (emerge) chaotically from a group of particles. The materialist imagines that particles bounce similar to billiard balls, yet a billiard ball itself is made of a group of particles; "bouncyness", or the pattern of movement, of a billiard ball, could be attributed to the fact that it is a medium, and therefore those characteristics might not necessarily transfer to the individual particle. Sometimes the analogy is taught to students that atoms are like spokes on a wheel, and that the vibrations of the atoms are akin to the spinning wheel that does not allow for your hand to pass through; although, the analogy requires you to think of the particles as solid spokes - the matter is solid because the pieces it's made of are solid. It is still taught that electric wires are essentially pipes, and electric particles flow through those pipes like water. It is conjectured that each force is a pattern that emerges from the interactions of particles by the same names of the forces. Guess which particle causes the force of gravity - you guessed it right: gravitons. Some proponents of a dualistic aether, as a way to promote their validity, cite that the views of materialistic academia are essentially in line with early conceptions of the aether. Yet, the shift from a dualistic aether to today's materialistically dualistic emergence is a shift which continues to fail to scratch the itch of causality, and leads to infinite regression.

Tesla would generally explain that light is sound in / of the ether. He thought that the Maxwellian, Hertzian, and Newtonian views of ether were false. He viewed light as a longitudinal wave of the ether, rather than as a transverse wave. A longitudinal wave, which can be thought of as a compression, is a more direct force "along" the length of the medium. In contrast, a transverse wave creates movement perpendicular to the direction of the wave; a boat appears to bob in a circular motion when affected by transverse waves in water. The ultimate question is, however, what is the medium, and why or how is it waving?

Consciousness is Coherence

The esoteric, or monist ether, on the other hand, is "nondual". The reason "nonduality" is specifically a reference to monist ontology is because monism involves only one set, or in other words, all things are described as being similar in some fundamental way and therefore are placed in one set. For example, instead of thinking about a "physical" magnet "with" a "nonphysical" field, consider that the magnet and the field are one and the same. There is this dualistic conception of a "monopole": a magnet has "two poles", so to get one pole, one merely has to remove one pole, right? In reality, there has never been a case where the poles have been separated, and the dualistic basis for this idea has not been proven or even elaborated on in detail. The facts are, that when a magnet is broken in half, the result is two individual magnets, each with two poles; a magnetic field is self similar and hierarchical. If one were to keep dividing a magnet in half, one would end up with a very small magnet with a magnetic field of identical shape and function. It's understandable that one would think of a chunk of iron and a

magnetic field as separate things, because everyone knows that there can be a chunk of iron that “is magnetized” and one that is not. Yet, it is known that magnetic fields are (intrinsic) to matter rather than (emerging) from matter. In all iron, there are small domains that are magnetized, and so all iron is magnetized.

With such nondual knowledge, it does not make sense to ask if the magnet causes the magnetic field. Indeed, another way to express this monist concept of intrinsic fields is to emphasize that when a magnet is created in the lab, nothing is added to the magnet. Rather, when the domains of the magnetic material are aligned, these small fields seemingly magically combine together into a single, large field. This (combination) is given the special name “coherence”. It's no mystery then, that various monists largely apply the word “coherence” to forces such as consciousness, and apply the analogy, or correspondence, of the mechanism of magnetism to the mechanism of consciousness.

The implications of this are enormous. A field being composed of smaller, identical fields, indicates a self similar hierarchy, through which all individual parts are nevertheless connected. Therefore, a common monist view of consciousness includes panpsychism, or a collective consciousness, aptly referred to in esoteric philosophy as the “Hierarchy”. Closer inspection of the behavior and mechanisms of magnets serve as a correspondence to human consciousness and therefore a source of insight into the less concrete concepts.

Additionally, the knowledge that a magnetic field of one size is identical in shape and behavior to any other field of a different size, means that it can be known that the largest or the smallest fields share the same shape and behavior, and so insights can be deduced about a whole range of phenomena in our universe, including perhaps the form and behavior of imperceptible atoms. (An authentic science requires no blind devotion. Anyone can observe a macroscopic portion of it, with or without special equipment, and then have perfect scientific knowledge that the smallest quanta possible has the exact same structure and mechanism.)

In regards to the subject of the ether, we can conclude that somehow, objects extend out to each other via their fields within this hierarchy. How can we think of an ether in nondual terms? instead of a medium which is separate from and spans the space between objects, imagine that objects intrinsically extend out to each other. The monist ether is not a medium of particles, but rather a single particle that is stretched out indefinitely or infinitely. The patterns of movement (wave vibration, vortex, compression, etc) are not made up of a medium of particles, but are rather intrinsic to the particle.

Some say that they understand everything to be connected insofar as everything is caused by or made of consciousness. While it is not inconsistent to monism to say that the ether, as perhaps various forms of consciousness, are the prima materia or the essence of all things, it is more precise to understand that all things are connected via the 'one set' of monism; consciousness would not be a separate set, and would be caused along with everything else in the set. There are certainly a number of overlaps between monist and idealist thinking, so while it is beneficial as an analytic methodology to stay consistent to a pure, authentic ontology, one should not dogmatically promote one ontological understanding over another.

Penrose and Hameroff together promote their theory of panpsychism through their Consciousness Science conference. Hameroff explains how, at the beginning of the evolution of life, there must have been some mechanism of desire which signifies the ignition (“BING”) of the engine of consciousness and life. He suggests that it is a desire for pleasure. I would say that

the riddle is much more simple to answer: coherence, which is desire, and in its modalities represent the desire of anything, including the desire of one magnet to be one with another magnet. Many agree that consciousness appears to exist on a spectrum, yet the mechanism is widely considered to be a spectrum of materialist emergence, a spectrum of computational complexity, which is the basis for the considering of artificial intelligence to be a form of life and consciousness. I propose an alternative, that consciousness and life exists on a spectrum of coherence, so that something is more conscious and more alive when it is more coherent.

In that case, an “unmagnetised” chunk of iron, being relatively unconscious, upon becoming “magnetized”, must necessarily be more alive and conscious than it previously was. This includes, of course, the caveat of different modalities and planes of coherence. Certainly, no matter how massive and coherent a permanent magnet is, it is not experiencing reality in the same way as the human brain, nor regarding itself as being someone named Steve. Likewise, along with the fact that the brain contains a variety of chemicals and

therefore a variety of qualia, there is the variable of fluctuations of coherence, partially brought about in the animal brain via chemical reactions. An organic brain, along with an organic heart, circulating nutrients and oxygen, via the medium of water, allows for the variances in qualia and fluctuations in coherence that lead to the animal perception of reality that is certainly impossible in a permanent magnet. Thinking of the brain as an electromagnet, which can turn on and off, can only serve as a loose analogy in this sense. The cyclical nature of coherence, and therefore consciousness is "samsara". The basis of sleep and death, and experiences, of the animal are due to a particular scope within the broader range of samsara. Perhaps the permanent magnet is also subject to fluctuations, but on a wider scope. It is difficult for a dualistic thinker to consider the apparently still magnet to represent a form of life, and similarly consider how life is intrinsic to all matter and therefore potentially very coherent forms of life taking many shapes. The materialist might seek out water on other planets to find signs of "life", while not considering the possibility that the planet itself is a massively coherent being.

In addition, it is dualistic thinking to assume that while there is an apparent connection between the mind and the brain, the only consciousnesses are those that are acutely embodied within a brain. Consider the fields of magnets; while each magnet has its own magnetic field, there is a third, overarching field. The two smaller magnetic fields make the poles of the larger field. Although the center of the larger field is in between each physical magnet, the two magnets act as the "body" of the large field. It is consistent with monism to say that a consciousness has a physical body, but it is also within reason to suggest that the combination of multiple coherent brains makes a single, larger mind. Indeed, the question is how the small "minds" of each neuron combine to make your single mind, but then the question must necessarily be asked, whether multiple brains combine to form greater consciousnesses.

It's possible that one could see all actions in the whole universe as attempts at coherence. Two magnets have the ability to repel each other, yes, but to think of a repelling as fundamentally separate from attracting is dualistic. To get magnets to repel, one must lock them exactly out of alignment so that they cannot rotate. If the magnets are not locked, they take a path of least resistance and rotate to be in alignment. Thus, attraction, or coherence, is not simply attraction, but a desire to rotate into alignment. And repulsion is really the desire to rotate into alignment, but being unable to rotate into alignment. Perhaps all actions are attempts at coherence, but many actions are failed attempts, however, due to the variety of frictions and

resistances of what are simply differentiated and misaligned modalities of coherence themselves. The true issue then is what leads to successful coherence? The answer is, the solenoid, used for making magnets, can serve as an analogy for a situation in which the attraction to a greater scope of coherence is more powerful than the attachment to any particular material desire, and a path of least resistance is offered.

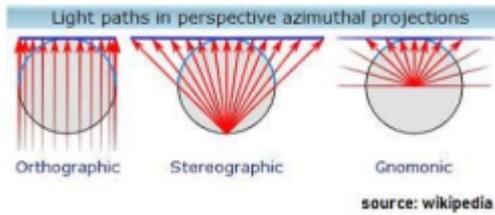
A complete explanation is an answer to the question of causality. What causes coherence? If etheric coherence is everything, then where does it come from? How can there be 'one set' that 'causes itself'? Is there something out there that can cause things, while itself is not caused? Whatever it is, it would be necessary for the validation of nondual thinking; the existence of the one set of monism needs an explanation. This may very well be a limitation of human understanding, and the answer may very well not be an ultimate truth, but rather a statement about psychology. Either way, of the various meanings of "causality", the most objective relates to events that happen chronologically. So, the question can be reworded to, "what causes time?" Whatever caused time would not be an effect that has a chronological cause. And this is where the importance of the 4th dimension comes in to esoteric thought. A 4th dimension mechanism causing our 3d world of chronological events would be the justification for the concept of one monist set.

Projection

Projection in our common understanding involves a source of light, an object to be projected, and a screen to project onto. For example, shadows of a hand being cast onto a wall by a flashlight. In the mathematical sense, however, projection is an abstract relationship between dimensions, or a way to represent something of one dimensional level as another. Indeed, the shadow is a 2d projection of the more real, 3d hand.

Imagine that you are using a flashlight to project a shadow of your hand on the wall. Depending on the distance of the flashlight to your hand, the size and shape of the shadow change - the placement of the point of projection determines the kind of projection. Now imagine bringing the light towards your hand so that it

touches your hand. The shadow then becomes infinitely large and takes up the entire wall. Stereographic projection is when the point of projection is touching the object being projected. In addition to creating an image that is distorted in terms of direction, area, or length, in a way that allows for infinity, it is special in the sense that angles and shapes are preserved. I have just described some of the characteristics of a field.



Furthermore, fractals such as the Mandelbrot set are created from algorithms which plot complex numbers - this is essentially what stereographic projection is - so it's possible that the self similar and hierarchical nature of fields is just another side effect of stereographic projection.

This fractal creating mechanism is what would lead to the esoteric concept of differentiation, and the coherence between differentiated objects, also being a product of projection, is really the essence of our universe. Coherence is essentially the playing out through time, of one 4d object, differentiated in 3d. Mathematician Lori Gardi is knowledgeable in the subject of a fractal ether and is consistently finding more relevant information to elaborate on her theories regarding a fractal ether. Recently she found similarities to her thinking regarding the ether in a paper by Hal Puthoff entitled Polarizable-Vacuum (PV) representation of General Relativity. Personally, I see the polar characteristic fields as a direct result of stereographic projection of a hypersphere. Interestingly, those who follow the work of Ken Shoulders, in conjunction with Hal Puthoff, cite his investigations as the basis in their belief that a field is a self-similar torus. Those who are in this particular area of study, such as Bob Greenyer, are most motivated to figure out, in lieu of a paper put out by Lockheed Martin, ways to create "coherent matter". Indeed, it is my observation that the last great leap in technology, and which is the basis for all current technology, was the moment when magnets were created in the laboratory; this signifies man's ability to make coherent a small range of materials (today referred to as "magnetic materials"), and so the next stage of technology will be man's ability to make coherent a wider range of materials. Crucial to the success of this science, however, is esoteric, specifically monist, ontology; an extra consequence of this would be the phasing out of blind devotion to materialism. The subject is neither benign nor abstract.

Mathematicians such as Poincaré and Einstein contemplated the relativity of forces as a result of nature's projective characteristics. Einstein's concept of a reference frame is central to his explanations regarding the ether and relativity of light. A fractal universe, a stereographically projected hypersphere, would lead to reference frames, where, despite an objective reality, each centre or field is the center of the universe due to being the focal point, and so length distortions, which light would travel through, are always relative to each individual object. It seems to me that this is the same as the esoteric concept of the "ring pass not". Einstein was explicitly monist and ontologically minded, and cited his belief in "Spinoza's God", an allusion to Spinoza's Substance Monism, a set of ontological arguments promoting nondual thinking. David Bohm believed in a "Holographic Universe", or a fractal product of projection. He promoted the idea of an "explicate order", like an illusory projected world, along with an "implicate order", an existential cause.

Despite representing the dogma of materialist academia, Susskind promotes his belief in what he calls the "Holographic Principle", which is in essence the idea that reality is the product of projection. This phenomenon, along with the more idealist concept of the reference frame, suggests to me that while ontology does always take precedent in the mind, and dictate all of one's analysis, and so science should acknowledge this bias, it is clear that mathematics transcends ontology and human comprehension. While I still propose that monism represents the pinnacle of human analysis, and allows one to describe more accurately the nature of being, that's all it is for.

Additionally, today, monist mathematicians Roger Penrose and Eric Weinstein promote similar ideas and at least imply that reality is specifically the result of stereographic projection. Penrose co-founded the Consciousness Science Conference, which I see as an ontology conference which has drawn many monists, who along with Penrose, promote panpsychism. Penrose, as a result of nondual thinking, is known to criticize the more materialist ideas that

have been coming out of physics in recent decades. Indeed, Weinstein, another monist maverick, is also involved in esoteric communities.

What causes the projection? If it was orthogonal or other kind of projection, we would have to account for the light source; there would be two objects, and therefore a differentiation requiring causal explanation. But the light source of ster. proj. is a part of the object. Perhaps the mere existence of a hypersphere just automatically equates to the existence of an infinite 3d universe. Further pontification about a 5th or 6th dimension, such as expressed in the question, "what caused the 4th dimension?", seems to contain many dualistic assumptions. A dimension is not a place, or a different version of reality. Are there truly any further issues of causality left unanswered? Projection is the solution because it is not caused, but it does cause. And in this case it is not an event in time and space - it causes time and space, and so it lacks the same issues of causality that dualistic forms of creationism leave behind, such as those seen in materialist academia.

A concept central to esoteric tradition is that of Maya, or Illusion. The word "illusion" is an ontological homonym. Any person is liable to agree that "the world is an illusion", yet there are a number of concepts that the word could be referring to. A subjective illusion may consist of dreams, hallucinations, misunderstandings, or other misperceptions. On the other hand, an example of an objective illusion is a shadow projected onto a wall. The shadow is objectively there and being perceived accurately, yet it is only an image of the thing being projected. It is there, yet it is not. Of course, one may then believe that the image is the real thing, and be emotionally and mentally attached to the image. A monist is likely to see a dream as a phenomenon of reduced coherence, and waking consciousness as an experience of increased coherence. Coherence, a certain modality of which is consciousness, while being an objective force, is itself the sign that reality, existentially speaking, is a shadow.

The entry for "upadhi" in Gottfried de Purucker's Occult Glossary is relevant: "Upadhi (Sanskrit) A word which is used in various senses in Indian philosophy, the vocable itself meaning "limitation" or "a peculiarity" and hence "a disguise"; and from this last meaning arises the expression "vehicle," which it often bears in modern theosophical philosophy. The gist of the word signifies "that which stands forth following a model or pattern," as a canvas, so to say, upon which the light from a projecting lantern plays. An upadhi therefore, mystically speaking, is like a play of shadow and form, when compared with the ultimate reality, which is the cause of this play of shadow and form. Man may be considered as a being composed of three (or even four) essential upadhis or bases."

A "magic lantern" is spoken of several times in The Secret Doctrine: "Three distinct representations of the Universe in its three distinct aspects are impressed upon our thought by the esoteric philosophy : the pre-existing (evolved from) the ever-existing ; and the phenomenal —the world of illusion, the reflection, and shadow thereof. During the great mystery and drama of life known as the Manvantara, real Kosmos is like the object placed behind the white screen upon which are thrown the Chinese shadows, called forth by the magic lantern. The actual figures and things remain invisible, while the wires of evolution are pulled by the unseen hands ; and men and things are thus but the reflections, on the white field, of the realities behind the snares of Mahamaya, or the great Illusion. This was taught in every philosophy, in every religion,

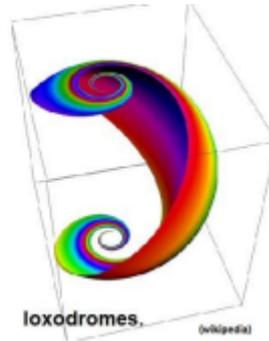
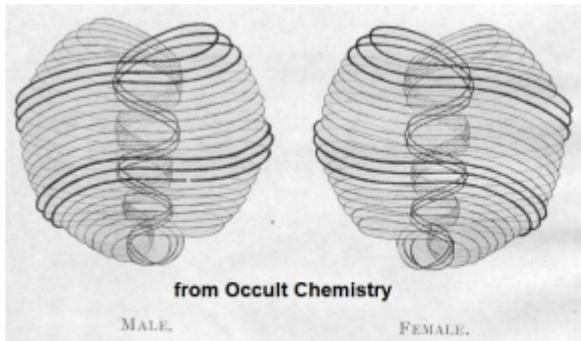
ante as well as post diluvian, in India and Chaldea, by the Chinese as by the Grecian Sages. In the former countries these three Universes were allegorized, in exoteric teachings..." (Secret Doctrine Vol.1 328).

Plato, who writes of Atlantis and antediluvian civilization, brings us the Allegory of the Cave, where the reality of unenlightened men consists entirely of shadows cast on the wall of a cave, whereas the enlightened man is shown a world outside the cave. He elaborates, through dialogue, that two things are most good: understanding, and the Sun. It is agreed by many scholars that the allegory is a lesson in ontology. I would go a step further and suggest that the allegory is a more literal physics lesson which has been passed down from ancient times - the nature of being IS a shadow.

Geometry

"Absorption, through that expression which is seen in all whirling spheres of atomic matter at whichever surface in the sphere corresponds to the point called in a planet the North Pole. Some idea of the intention that I seek to convey may be grasped by a study of the atom as portrayed in Babbitt's "Principles of Light and Colour," and later in Mrs. Besant's "Occult Chemistry." This depression is produced by radiations which proceed counter to

the rotations of the sphere and pass down from the north southwards to a midway point... Every atom, though termed spheroidal, is more accurately a sphere slightly depressed at one location... This is true of all spheres, from the solar down to the atom of matter that we call the cell in the body physical..." (TCF 78).



These etheric spheres, composed of spirals, maintain their geometry no matter how small or large; they are self similar and hierarchical. There is much debate over the shape, and

therefore mechanism, of an atom, simply because an atom is small and outside the scope of perception even though the use of special equipment. It is, however, well within the current ability of man to describe in great detail the shape of a magnetic field in particular. Not only does knowledge of this shape give hints as to the mechanism and the ontology of the magnet, but of atoms as well.

"Each centre or chakra is composed of three concentric interblending whorls or wheels...

the rotation becomes intensified, and the activity, fourth dimensional. It is difficult to express these ideas in words that can be comprehended by the uninitiated, but the effect could be described as a changing from a measured turn to one of a scintillating radiation, a 'wheel turning upon itself'" (TWM 170). "An atom, we are told, contains within itself three major spirals and seven lesser" (TCF 130). The etheric centres, or chakras, have a fourth dimensional activity. To begin to grasp the activity of the ether precisely, we must begin to grasp the precise shape of the ether. The atom's shape is the shape of an etheric centre, because an atom is an etheric centre. It is dualistic, and not consistent with monism, to think of the magnet at something different than the magnetic field. If it is known how the smallest magnetic field is shaped, it should be known how the smallest magnet is shaped. At some point in the future I suppose that the variety of nuances in the shape, and therefore the activities, of the atom will be understood. But as we begin to grasp these concepts, we can definitively recognize the most basic shapes and their meanings.

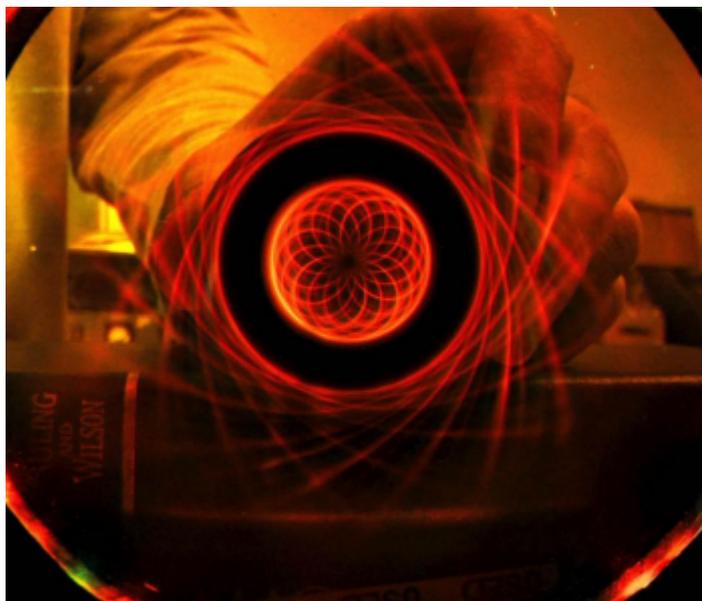
"Each scheme, as each human centre, will

- a. Vibrate to some one key.
- b. Have its own colouring.
- c. Resemble, when seen from the higher planes, a vast lotus.
- d. Possess, according to its vibratory capacity, a definite number of petals." (TCF 188-9)

Two of the most basic characteristics are that the etheric centres can resemble a lotus with a definite number of petals, and that each center has particular resonant qualities. But here it is also suggested that the number of petals of a centre is related to its particular resonant qualities. "It must be remembered also that the word 'petal' only symbolises an expression of force and its apparent effect in matter" (TWM 96). "...both will and desire are force emanations. They differ in quality and vibration, but are essentially currents of energy, one forming an initial vortex or centre of activity, being centrifugal, and the other being centripetal, and the main factor in the accretion of matter into a form around the central vortex. This can be seen demonstrating in an interesting way in the case of the egoic lotus, where we have the will aspect forming the "jewel in the lotus," or the inner centre of electrical energy, and the desire or love aspect forming the egoic lotus itself... The solar system is (from the higher cosmic planes), seen as a vast blue lotus, and so on down the scale; even the tiny atom of substance can be so considered. The distinction between these various lotuses exists in the number

and arrangement of the petals. The solar system is literally a twelve-petalled lotus, each petal being formed of forty-nine lesser petals. The planetary lotuses differ in each scheme, and one of the secrets of initiation is revealed when..." (TCF 522).

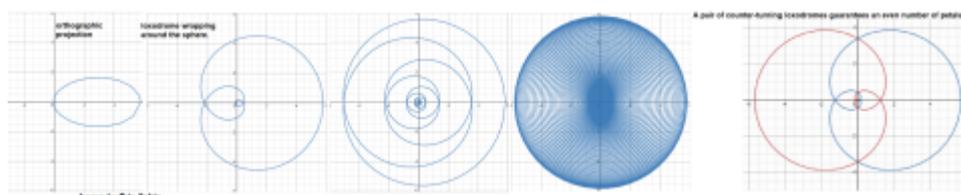
A 'petal' is a symbol or representation, but it is a part of what makes up the apparent shapes of these etheric centres. We're reminded that the appearance of the petals is actually caused by the activity or forces of the etheric centre - in this case they are vortexes, one being centrifugal, and one being centripetal. Furthermore, we're told that each of these centres, with a definite number of petals, and definite resonant qualities, have a specific and countable number of petals.



Ring magnet + ferrocylinder. Timm Vanderelli, ferrocylinder.us, Photo by M. Snyder

"The arrangement of the spirillae within the permanent atoms varies on each plane and the ones most frequently described are those of the physical plane. The arrangement of these tiny force vortices and their internal economy on each plane is one of the secrets of initiation and may not be revealed. One hint only may be given to guide the student: The astral permanent atom has its internal streams of force arranged so that the spirals do approach quite closely the conformation of a heart, though the pointed end is eliminated. The buddhic permanent atom has its spirillae arranged so as to form approximately a figure eight with a central stream bisecting the double spiral" (TCF 279).

The form of some of these centres, the astral permanent atom and the buddhic permanent atom, are elaborated on. Each shape is defined by the particular arrangement of spirals, or spirillae. These spirals form to make the appearance of shapes similar to that of a heart, or figure eight.



My analysis is that these descriptions conform to the idea of an etheric centre representing a self similar and hierarchical shadow of a 4th dimensional sphere. I have considered what exactly a sphere could be composed of, or in other words, if there were varied

iterations of projected spheres within our holographic reality; one possible answer is that a sphere can be made up of lines at varied angles. Primarily there can be lines of latitude, which are concentric rings of different size, and are projected as such. Also there are lines of longitude, which are rings of the same size that go through the north and south poles, and which are stereographically projected as straight lines, with angles orthogonal to the lines of latitude. These are how field lines are traditionally depicted. However, in addition to these lines at 90 degree angles to each other, there might be lines at varied angles - loxodromes - which appear to coil around a

sphere, and when stereographically projected, create logarithmic spirals.

These spirals can create the appearance of lotus flower petals. Indeed, the single characteristic which could differentiate one element from another, the bearing of loxodromes and the resulting shape of lotus flower, is confirmed in the literature. Likewise, the morphogenesis of actual flower petals, as well as the logarithmic spirals found at all scales in nature, must have some objective and natural force as their basis, rather than a meaningless emergence of undefined complexity in the interactions between particles which exist solely in the imagination of a materialist sitting in a chair somewhere.

One issue is that I have proposed that the projection is stereographic, the spiral products of which do not create a definite nor countable number of petals, as the image is always stretched infinitely. However, the same sphere with the same loxodromes does create a pattern with definite and countable numbers of petals, if the point of projection is raised up out of the sphere to make an orthographic projection. This method of viewing the petals, within the confines of a definite circle, is much more graspable. It is easily seen that as the bearing of the loxodrome is changed, the shapes made by the spirals change. In this method, the spirals do make the shapes as described. The number of petals corresponds to a specific bearing of the loxodrome. And, as the bearing winds more tightly, the number of petals increase, and widen outwardly, as if they are unfolding from the center.

“The permanent atoms have the four lower spirillae fully active (two groups of two each) and the fifth is in process of arousal into equal activity. The triangle is in circulatory action but has not yet achieved its full brightness nor its rotary or fourth dimensional revolution. ...The two circles of petals are “awake,” one being wide open and the other on the verge of opening” (TCF 425).

To see the spirals morph, using a graphing program, is possibly analogous to seeing the centres themselves change. The final point I want to make is that, if a particular centre is a particular atom, and the main purpose of knowing the shapes of these atoms is to know how they change, or even how to change them, then the range of materials may simply be described by the bearing of their loxodromes. It is a monist idea that, if the intention is for the mind to change or be enhanced in some way, then it is required that there be some change to the form. Likely, more coherence, but in this case, a change in chemical composition as well. The range of chemicals our world is comprised of is described as hierarchical - some materials are considered of a higher order than others, such as lead versus gold.

“[The force of the rays] works upon the spirillae, and brings them all gradually into play” (TCF 37). The change from one chemical to another definitely causes vibrations / radioactivity. The cause of chemical change is a force (of coherence). If two magnets are moved closer to each other, at some point their attractive force will be stronger than other forces and they will snap together. I think that two chemicals, with a certain level of attraction, when allowed to be

near each other, will cohere and their geometry will change from one bearing to another to create a third chemical.

“...the number eight is the basic symbol of all the centres, for the petals are really in form like a number of superimposed eights. The word petal is purely pictorial and a centre is formed on this pattern. First, a circle, O; then two circles, touching each other and making therefore an 8. Then, as the petals increase in number, it is simply a growth of these double circles, superimposed at differing angles one upon another until we arrive at the thousand-petalled lotus in the head” (TWM 278).

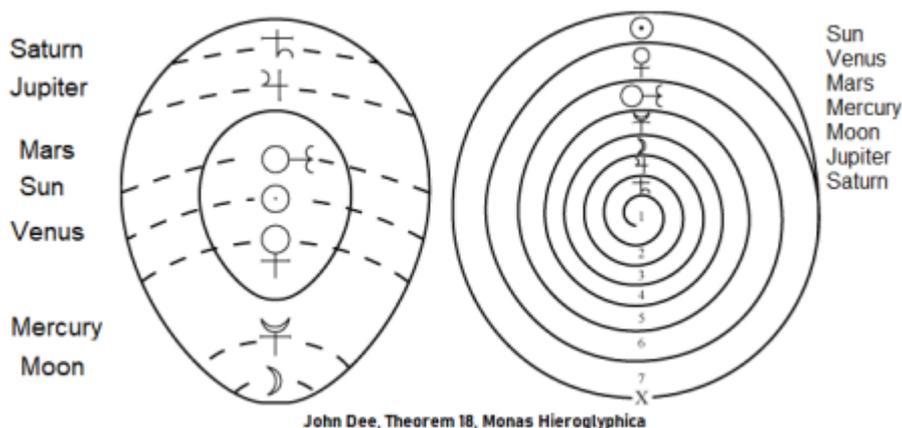
There are natural laws which limit a form's ability to change or cohere. A particular process must be followed for the success of a particular unfolding of etheric lotuses. There is a limited, and spectral, window of materials which can be “magnetized”, so this list of materials are called “magnetic”. There is a limited, and spectral, window of materials which cohere with a sweet receptor, so this list of materials are called “sweet”. Surely the limitations are those of resonance in terms of vibration, but in addition, I consider there to be a resonance in the shapes of these elements. One might phrase these etheric differences as “modalities”. Likewise, we're told of a hierarchical ladder of planes and subplanes, which despite being made of essentially the same ether, do not freely interact with each other.

In spectroscopy, a light is beamed through a specific material, and then the light is separated with a prism. Depending on the material, different colors of light will make it through to the end. Despite a drastic increase in materialist influence in academia in recent decades, the still accepted mechanism of spectroscopy is that the chemical being investigated will resonate with, and therefore absorb, the EM vibrations of specific frequency / color. Chemicals are therefore associated with specific frequencies / colors. The issue as to what a chemical is, what a frequency is, and why the chemical resonates, is a matter of ontology, and remains under the purview of monist science. The term “vibronic coupling” refers to the relationship between light vibrations and sound vibrations. The two kinds of vibrations made to be separated phenomena is dualistic thinking. Yet, light travels through a vacuum while sound does not. How does the monist explain apparent dualistic phenomena such as this? The real answer is that a close inspection always reveals that in fact there is no duality, and that perceptions of duality are due to a lack of close inspection. However, the concept of planes is immediately required for monism in these cases to justify moments lacking close inspection. Is it too much of a stretch to consider that within the rules of monism, there can be atoms that are “less physical” and yet still existing within the same unified set? A spectrum of “physicality” is not a duality.

When an object resonates, it also vibrates at other set frequencies, known as the harmonic series. Imagine a string of length 1, vibrating at frequency 100. If 1/2 the length of the string vibrates, the frequency is doubled to 200; if 1/3, then 300, and so on. The harmonic series consists of frequencies of these ratios with whole numbers.

Ratios determine harmony and resonance. A spectrum, which is self similar and hierarchical, contains no landmarks - in other words, harmony and resonance is a relative phenomenon. The construction of a scale of notes is formed using ratios which are relatively harmonic. Within these harmonic ratios is an innate sevenness: the seven notes map to a torus, which has a topological sevenness. The resonance of ratios exists in the spectrum of frequency, yes, but what about in the spectrum of bearing the loxodrome takes around the sphere? The

definition of a logarithmic spiral is a geometric progression of a particular ratio, just as is seen in music. Indeed, stereographic projection is known as a kind of “harmonic map”. A true logarithmic spiral is the product of stereographic progression; the Fibonacci sequence, for example, is an approximation. The golden spiral, a product of the golden ratio, phi, is spoken of widely. However, among the wide spectrum of possible logarithmic spirals are a series of other “metallic ratios”, listed hierarchically. While not likely that these metals are actually defined by these ratios / bearings, I wonder if indeed a specific metal might simply be defined by a single ratio, which would also be a unique lotus flower shape. As an interesting aside, John Dee's *Monas Hieroglyphica*, Theorem 18, presents us with a riddle about the nature of being wherein an egg-shaped Monad transforms into, or becomes projected as a spiral pattern, and the planets or the corresponding metals they represent are arranged into a particular order.

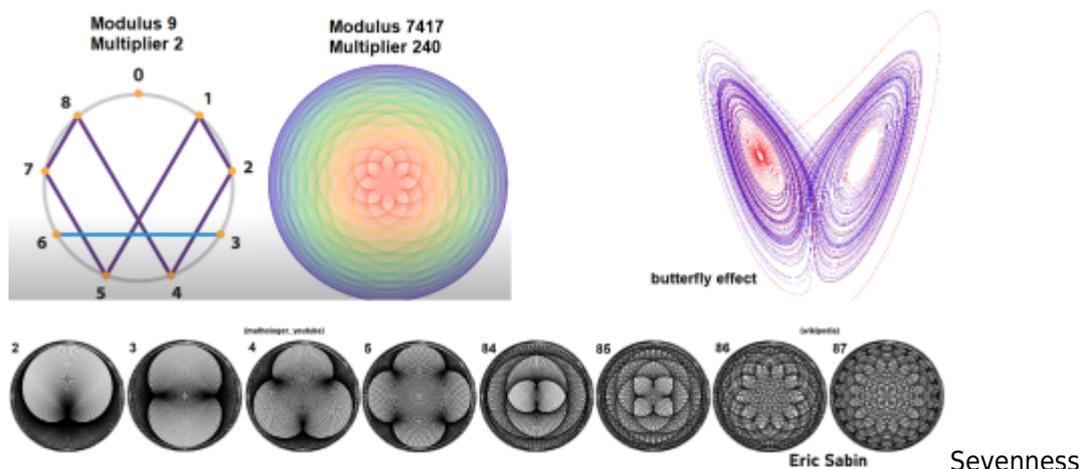


Metallic ratios

Name	b	Equation	Value	Continued fraction	OEIS link
Platinum	0	$(0 + \sqrt{4}) / 2$	1	-	-
Golden	1	$(1 + \sqrt{5}) / 2$	1.618033988749895...	[1,1,1,1,1,1,1,1,1,1,1...]	OEIS:A001622
Silver	2	$(2 + \sqrt{8}) / 2$	2.414213562373095...	[2,2,2,2,2,2,2,2,2,2,2...]	OEIS:A014176
Bronze	3	$(3 + \sqrt{13}) / 2$	3.302775637731995...	[3,3,3,3,3,3,3,3,3,3,3...]	OEIS:A098316
Copper	4	$(4 + \sqrt{20}) / 2$	4.23606797749979...	[4,4,4,4,4,4,4,4,4,4,4...]	OEIS:A098317
Nickel	5	$(5 + \sqrt{29}) / 2$	5.192582403567252...	[5,5,5,5,5,5,5,5,5,5,5...]	OEIS:A098318
Aluminum	6	$(6 + \sqrt{40}) / 2$	6.16227766016838...	[6,6,6,6,6,6,6,6,6,6,6...]	OEIS:A176398
Iron	7	$(7 + \sqrt{53}) / 2$	7.140054944640259...	[7,7,7,7,7,7,7,7,7,7,7...]	OEIS:A176439
Tin	8	$(8 + \sqrt{68}) / 2$	8.123105625617661...	[8,8,8,8,8,8,8,8,8,8,8...]	OEIS:A176458
Lead	9	$(9 + \sqrt{85}) / 2$	9.109772228646444...	[9,9,9,9,9,9,9,9,9,9,9...]	OEIS:A176522

(wikipedia)

Many beautiful coincidences in nature and in mathematics, while consciously dismissed by materialist academia as subjective and meaningless, potentially have an objective meaning and explanation. Within chaotic complex systems, despite apparent randomness, self-similar and fractal patterns occur, such as the Lorenz attractor / butterfly effect. Why? Does it emerge only as a pattern recognized by the social brain? Or is there an underlying natural force determining the polar, and spiral shapes? An underlying natural force is what many see in a phenomenon known to some as “vortex mathematics” or “modular multiplication”, but rejected by others as meaningless coincidence. The appearance of logarithmic spirals emerges from a complex mathematical arrangement of straight lines, almost as if the spirals somehow permeate numbers themselves.



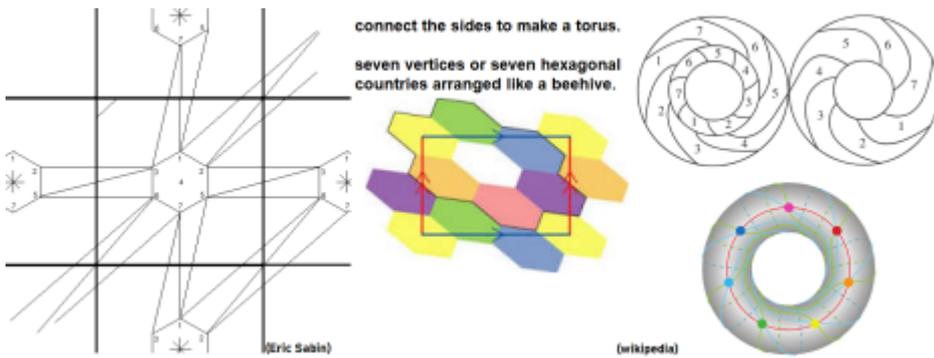
Studying the topic of projection, and then the topic of details regarding the shape of etheric centres, naturally leads to the topic of sevenness. I suggest that sevenness is an obvious result of projection. First I want to mention one of the mathematical justifications for sevenness that is seen in esoteric teachings today - “three make seven”. This follows the idea that there are three fundamental characteristics to nature: consciousness / ideation, substance / mulaprakriti, energy / fohat. One way to word this kind of combination is “sum of combinations without repetition”. So, if we had three ingredients in a bag, what are the total combinations we can make if we grab 1, and then grab 2, and then grab 3? The result is seven combinations of ingredients.

A core piece of the puzzle is revealed by Arthur Young. In *The Reflexive Universe*, Young claims, “the formula for the volume of the Einstein-Eddington universe, the so called hypersphere, [is] the same as the volume of the torus with an infinitely small hole” He points out that there is a topological sevenness intrinsic to a torus, and because fields are toroids, there is a sevenness to all things in nature.

The Heawood conjecture or Ringel-Youngs theorem provides a formula for the

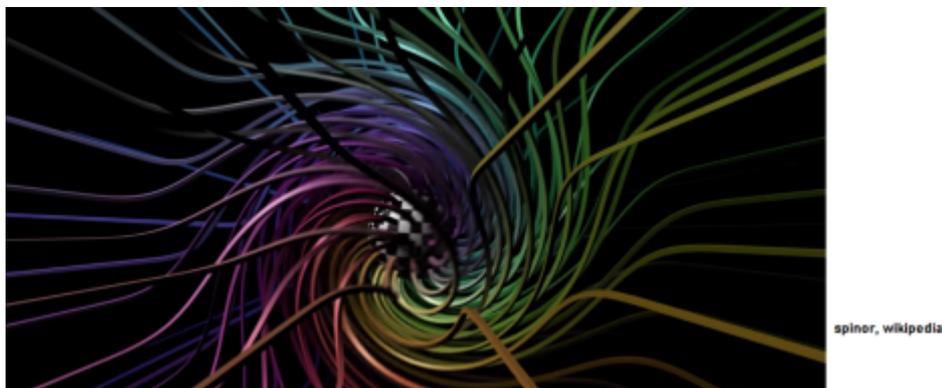
chromatic number, or the maximal number of colors needed for a graph coloring of a surface with a given genus. For example, the Four Color Theorem proves that at most, 4 colors are needed to complete a map on a plane, so that no two nations of the same color share the same borders. The seven-color theorem, for the torus with genus 1, the chromatic number is 7. A map of 7 countries on the surface of a torus corresponds to a torus with seven vertices or points which are connected by lines that do not intersect, which is mathematically

referred to as an embedding of the complete graph on seven vertices (K7) on the torus, or what Arthur Young refers to as the heptaverton. Perhaps this is related to the “seven spirillae” spoken about in Treatise on Cosmic Fire.

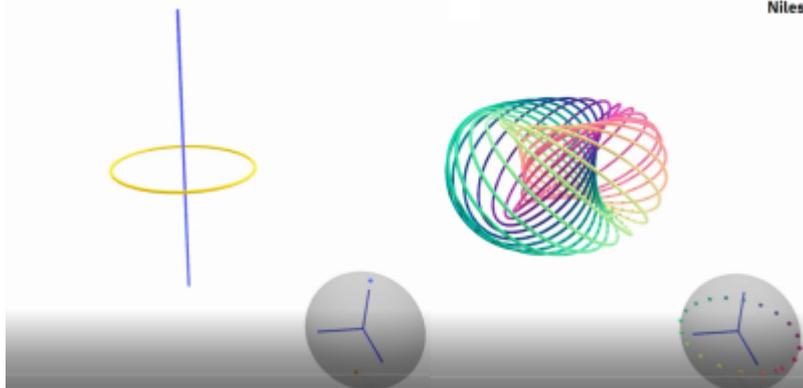


Young certainly has the abstract thinking regarding the importance of a torus, yet much is left without explanation or elaboration. If I'm not mistaken (visualizing 4d is a difficult task), a point on the hypersphere is stereographically projected as a ring if it does not pass through the

point of projection, but is projected as a straight line if it does pass through the point of projection. Indeed, the focal point of the hypersphere, the south pole, is projected as an undistorted torus, while the point of projection, the north pole, is a straight, vertical line, orthogonal to, and going through the center (centre) of the focal torus. All other points on the hypersphere, as described by the Hopf Fibration, are connected to this centre via a distorted, stretched torus. These stretched rings can be any length. If one were to see these rings, stretched from this center point to any and perhaps every other point in the universe, it would appear as a vast bundle of fibers. If this central object were to spin, because it is attached to these strings, it would have to make two full revolutions before going back to its original configuration. This “Dirac's String Trick” illustrates the mathematics behind a phenomenon physicists call a “spinor”.



Niles Johnson, youtube



Consistent with pure monism, it is nonsensical to refer to the ether (defined as prima materia) as a substance apart from matter, or even a characteristic of matter. There is no actual

difference between the stuff and the characteristic or force. There is the centre, and the fibers between them.

The distances between the turns of a logarithmic spiral increase in geometric progression. The sum of a

geometric progression's terms is called a geometric series. There are series that converge, where the individual terms of the series must approach zero, but the sum of these terms, referred to as an infinite sum, or a limit, converges towards one value. For example, the infinite sum of $1/2^n$ converges to 2. In musical terms, if one reduces the length of a string by $1/2$, its harmonic frequency is doubled; this is an octave. If the lengths of strings are continually halved, and then the length of each of these strings was added up, the sum would approach the length of 2 of the original string. This is what one might refer to as the base 2 or binary logarithm. Historically, the first application of binary logarithms was in music theory, by Leonhard Euler: the binary logarithm of a frequency ratio of two musical tones gives the number of octaves by which the tones differ. This is simply to say that the number of octaves between two frequencies can be calculated in this way.

Euler solved the Basel Problem; he found the infinite sum of $1/n^2$ (which is similar to the harmonic series) to be $\pi^2/6$. And, while considering the harmonic series, developed a proof that the sum of the reciprocals of all prime numbers is divergent.

In contrast to convergent series, some series are divergent - they do not converge to a particular value. An odd example of a divergent series is the harmonic series, despite the expectation that it was a convergent series due to its individual terms approaching zero. Another example of a divergent series is the series of doubled frequencies that result from the musical strings being halved, which is $2/1^n$; the magnitude of the number continually increases. Divergent series were widely used by Leonhard Euler, and they reappeared in 1886 with Henri Poincaré's work on asymptotic series.

The concept of convergence is central to the controversial Zeno's Paradox, wherein, logically, it would make sense that, as an infinite sum of a sequence of distances travelled, one should never actually arrive at their full intended distance - yet apparently we do travel set distances all the time. It has come to my understanding that thinking shallowly in terms of basic human perception is a distraction from finer truths about reality. The only reason it's considered a paradox is because reason contradicts shallow human perception of reality. When the situation is approached with measurement devices, it's no longer a contradiction of perception, and is no longer dismissed as being ridiculous. The Coastline Paradox is this form of Zeno's Paradox, wherein the coastline of Great Britain becomes longer as one uses shorter and shorter rulers to measure with. The length of coastline is considered to be a kind of fractal, and the concept of fractal dimension has been invented as a way to categorize these phenomena. The conclusion to the controversy of Zeno's paradox is that, indeed, there is a characteristic of objective reality wherein the distances between objects is an infinite convergent series of distances. The reason for this is because these differentiated objects and distances are a product of projection and are therefore fractal. Our reality is a kind of shadow and not as definite or concrete as is perceived plainly.

For example, the infinite sum of $2/3^n$ converges to 3. In musical terms, if one reduces the length of a string by $2/3$, its harmonic frequency goes up by $3/2$; this is a fifth. If the lengths of strings are continually shortened by this length, and then the length of each of these strings was added up, the sum would approach the length of 3 of the original string.

The first method of forming the musical scale, both the major scale of 7 notes, or combined with the minor scale to make 12 notes, is to divide the fundamental string by a series of ratios considered "simple". I would suggest that an additional characteristic of a simple ratio might be one that has an infinite sum that converges to a whole integer.

Length of string	Major Scale	Sum converges to
$1/2$	Octave	2
$2/3$	Fifth	3
$3/4$	Fourth	4
$4/5$	Major Third	5
$8/15$ ($2/3$) ($4/5$)	Major Seventh	$15/7$
$8/9$ ($2/3$) ($2/3$) (2)	Major Ninth	9
$3/5$ ($3/4$) ($4/5$)	Major Sixth	2.5

Eric Sabin

There is a second method of forming the music scale. Begin to calculate the frequencies of the sequence of $2/3$, but stop at the twelfth iteration ($2/3^{12}$). Now do this for $1/2$, but stop at the seventh iteration. The frequency of the twelfth fifth very closely reaches the frequency of the seventh octave. This sequence produces the circle

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