



THE YIN YANG UNIVERSE

"THE INVISIBLE DANCE OF THE UNIVERSE"

MARC LETOURNEAU

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Marc Letourneau

Fourth Edition

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Foreword

Imagine an infinite Universe, oscillating and dancing, with localized "small bangs" and "small crunches" occurring simultaneously throughout space.

The ideas presented in this book challenge present views of the Universe from the ground up, including the second law of thermodynamics and every "universal constant" there may be. They provide the reader with the freedom to think outside the self-imposed frames of reference and allow for a complete rethinking of current paradigms.

Written by a non-physicist free thinker, the text "goes where no man has gone before," totally unrestrained by existing paradigms, consensus and dogmas. Such an important approach should not be dismissed with the back of one's hand.

Recognizing that every theory is based on axioms or postulates, the author points out that the postulates of current physics are based on essentially mystical and supernatural concepts which lead to a lack of understanding: What is a force? What is a force field in empty space? What does it mean? How does it work?

When scientists state that questions such as "what was there before the big bang?" are up to philosophers to answer, they are simply avoiding the question. Every science is built upon postulates, like a house on its foundation; when the postulates are not grounded on a foundation that is based on reality (no one knows that, initially) then the science weakens.

New postulates (or bases) are being proposed in this book. Some elements of a "new house" are elaborated upon this foundation. Readers are invited to develop this new house

and see if it stands. This foundation is a springboard for new theories that could better explain what is being observed such as, the physicality of gravity, which no model has proposed so far. Or course, new mathematical formulations will be needed. These new postulates look for real and tangible reasons for what is being observed, and provide answers to questions that current science has never answered. It is worth looking into, as it is the only proposed model to date that can answer these questions, thanks to its new sets of mysticism-free basic postulates.

In writing this book, Marc Letourneau has the very distinct advantage of NOT having been trained in physics, and because one of the major by-products of education is conformity, this makes him a non-conformist. Open-minded and free thinkers are an important asset to scientific inquiry, because consensus can, often times, point in the wrong direction.

Postulating on the physicality of the Universe has given way to mathematical abstractions. These may be so far removed from reality that they might as well be considered an exercise of futility or even something like "Physics according to Monty Python."

Consider this:

What lies outside the expanding universe? How much empty space is there and how far does it go?

What is the "curvature of space" in an empty space?

How can communication between two points occur in an empty space without a physical medium?

How much can the space-time continuum be stretched?

The horrendous complexity of current theories may make some physicists feel good about themselves, but excessive

complexity is usually an indication that something is wrong. I believe Truth is always beautiful and simple. When a traveling couple is driving down the wrong highway and the signs of them being lost become increasingly compelling, how long does it take them to do something about it? Why does it take so long, and who has the guts to speak up? The power of consensus and dogma is huge, and the fear of looking bad is one of the scientist's major components.

Whether or not the explanations provided herein turn out to be accurate, they will provide food for thought and challenge common thinking in a totally new way. This book is very timely and illustrates how the time to think outside the box has come. It provides a new path that will allow the reader to take a fresh look while freeing him-, herself from what is generally perceived as unavoidable basic laws or truths.

Dear reader, whatever your involvement in physics may be, I highly recommend that you give this thought-provoking book serious consideration, if only to experience how many novel ideas may show up as a result. Enjoy!

Wolfgang Blach, P.Eng., Ph.D.

Preface

My graduate education is not in physics, but in measurement statistics. While I do not profess to know all the facts and laws that exist in the scientific literature with regards to physics, the Universe and its mysteries have always fascinated me.

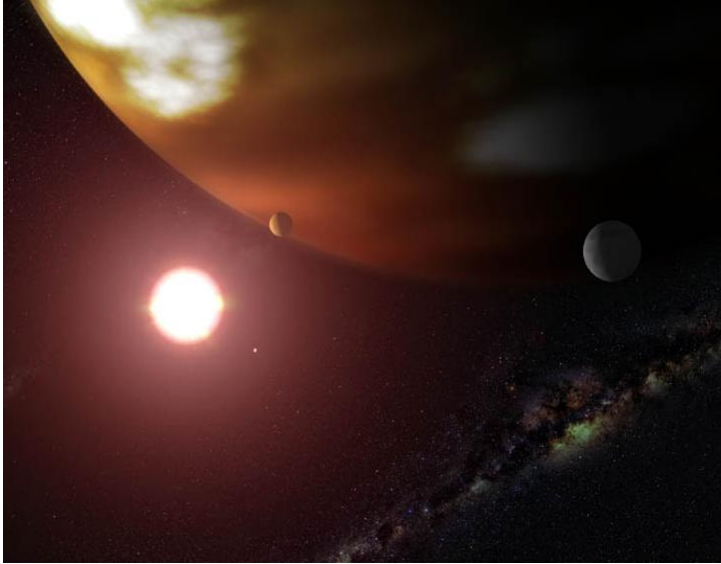
But as I began to investigate the field, it became apparent to me that what was missing was a physical model of the Universe; this is what I was instinctively searching for myself. I believe I have found it.

I know only a little about physics, and this was useful to think out of the box, but I think I know just enough to suggest a philosophy- and physicality- based model of the forces at work in the Universe.¹ It is my hope this model, which in this book is a brief summary, will be used by people with more advanced knowledge, who can derive the complex scientific argumentation required to validate this theoretical model over the other existing ones. If there were indeed validity to it, then it will be up to them to put some more “meat” around the “skeleton” proposed in this book. For some reason I was ambivalent about publishing the first version² of this work and simply left the manuscript on a shelf while pursuing other projects. However, I think the time has finally come. I can sense it in the scientific literature.

¹ I constructed the main elements of this model over a period of two years, from 1979 to 1981.

² The first manuscript was written in French in 1996, after one article was written in 1998 in a University student paper (Physics Department).

Finally, I apologize for the text that may not be written with perfect English since my native language is French.



I – TABULA RASA

On the tiny spaceship that is Earth, humans have never ceased to wonder about the medium in which they are immersed and of which they are a part. To the question “where are we?” humans on all continents have formulated many answers, thus accumulating knowledge over millennia.

Can we, therefore, conclude that we know more now than we used to? Of course we can! Do we not cross the seas in a matter of hours? Have we not sent satellites into space, some of which have gone beyond the limits of our solar system? Indeed, we have sufficient understanding of our environment to be able to achieve such things. However, as astonishing as it may seem, the understanding that today’s scientists have about the Universe remains superficial. They may have enough accurate knowledge about the effects of the gravitational force to deduce mathematical formulas and these can be used to calculate everything (or almost) related to trajectories. But does this mean they know what the mechanism of this fundamental force is? Actually, we contend they know absolutely nothing about it!

This is a situation of remarkable gravity, in my opinion. Putting puns aside, the fact that we, as a whole, know enough about gravitational force to make practical use of it but have yet to understand what it actually is may puzzle any inquisitive mind. The word “force” exists, in this case, only to announce the presence of a phenomenon whose mechanism is completely unknown to us. It is intriguing to say the least!

One has to realize that Newton, the “discoverer” of gravity, did not understand how it worked. In relation to Newton, Professor Dr. Pavel Kroupa (Bonn University) wrote:

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“Although his theory does, in fact, describe the everyday effects of gravity on Earth, things we can see and measure, it is conceivable that we have completely failed to comprehend the actual physics underlying the force of gravity.”³

There is nothing more common place, and more familiar, to humans than gravity. The Earth, the moon, the sun, and all the galaxies are influenced by it. Absolutely everything we do is, in some way, dependent upon gravitational forces, although most of us seldom think about it. But as familiar as the *experience* of gravity is and as fully as scientists describe its effect mathematically, again they still have not the least understanding of how it works. This situation should act as a reminder that it will serve us well to forego a smug “we-know-it-all” attitude and approach the issue with humility.

We do indeed know more than our ancestors did but, again, the essence of the Universe is still a mystery. This little book attempts to remedy the situation and provide a way to extricate ourselves from the quasi *supernatural* dead end we have been in for so long. What we will show may not represent the total reality concerning the make-up of the invisible forces of the Universe but it is, at least, an effort in this direction. It may also help others in formulating a better understanding of the internal workings of the Universe.

³ Metz, Manuel; Kroupa, Pavel; Jerjen, Helmut: Discs of Satellites: the new dwarf spheroidals (*Monthly Notices of the Royal Astronomical Society*, 2009; doi: 10.1111/j.1365-2966.2009.14489.x), Cited in physorg.com (<http://www.physorg.com/news160726282.html>).

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Maybe few have realized that many theories have very weak basic assumptions that represent the essential problem. This may be because many people who practice science do not like to practice philosophy and usually downplay it or ignore it, especially in scientific papers. However, postulates that are at the foundation of theories are philosophical by nature and it thus becomes essential to take a philosophical approach in evaluating them. The basic postulates supporting a theory are very important since false postulates will not help formulate a theory that is well grounded in reality. In a sense, it is like building a house. No matter how sophisticated your house (theory) is, even mathematically, if you build it on quicksand (postulates), your house will sink inexorably and disappear into oblivion. A mathematical model is not necessarily dependent on the physical reality it is supposed to represent, and as in gravity, it does not need any.⁴ But it may help to refine a mathematical model of gravity if one knows how gravity works.

A theory would most probably increase its chances of being true if it were based on true postulates. For instance, beginning with the assumption that absolute emptiness exists can lead to theories that would be completely different from those we may construct if we assume that

⁴ It is a much known concept among researchers who know statistics that a good correlation between two variables does not imply at all that one is the cause of the other. A hidden third variable can influence both of them. Nevertheless, one can use the variations of one to predict the variations of the other without knowing the real cause of the variations. That is why one must realize that mathematics is not the key to understand the mechanism of a phenomenon. It helps to model the phenomenon. That is all it does.

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absolute emptiness does not exist because interpreting the facts will vary depending on the assumption we make.

One clue that suggests that a theory is not based upon good postulates is to be found in cases where there is essentially no explanation for a phenomenon; naming a phenomenon a “force” without explaining its physical mechanism is equivalent to saying that the phenomenon is supernatural or immaterial. It is exactly what we observe in our current theories regarding the structure of the Universe and its “origin.”

All the forces in the Universe have not been adequately explained and they need to be looked at with a fresh and new vision. It can be stated that the postulates on which we rely for our understanding of the Universe are, at the very least, partially false since they point to immaterial forces. Therefore, these forces become magical or supernatural, rather than scientific ones. Indeed, if no scientist knows how gravity or magnetism works, and treats them as immaterial forces, we are in the realm of magic. This does not represent real understanding. It is mysticism disguised as science.

For that reason we believe that to better understand our universe, it is necessary and relevant to start over from the beginning. Taking a Tabula Rasa⁵ approach that is mainly philosophical will allow us to clarify things from “ground level.” Starting from scratch, we will perhaps be able to find a new foundation, which will allow us at the end to explain more clearly some of the partially known

⁵ Blank slate

phenomena and therefore answer certain fundamental questions.

Three Basic Postulates

In addition to the basic assumptions of science, which are that the human mind is able to understand the Universe⁶ and that the supernatural does not exist,⁷ let us state the following postulates:

First postulate:

The Universe is to be defined as: everything that exists, known or unknown, visible or invisible.⁸

Second postulate:

What exists “occupies” a volume, however small.

Indeed, how can something that does not occupy any volume exist? If one believes such an idea to be true then it may be we have not thought sufficiently about the mathematical limits that describe any phenomena. For example, the mathematical concept ascribed to the number zero does not necessarily mean that it is represented in space volume. It is a *relative* concept when applied to the real world. For instance, having zero apples in a basket

⁶ This simply assumes that the mind is flexible enough to understand anything, especially when multiplied by the diversity of minds in humanity.

⁷ A supernatural phenomenon is only an unexplained natural one.

⁸ Visibility is relative to what we can perceive with our eyes or with the help of scientific instrumentations.

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does not mean there is absolutely nothing in the basket. There is normally air, for one.⁹

Third postulate:

An absolute vacuum cannot exist.

If an absolute vacuum existed, even in between the dispersed atoms still found in deep space¹⁰ or in between the radiation elements that are thought to travel through it; it would create an unacceptable paradox because an absolute vacuum, as defined as the absence of anything, literally means “non-existent.” Thus, to say that “non-existent” exists is blatantly illogical.

Here, we are rediscovering an antiquated idea which fascinated Greek philosopher Parmenides. Whereas the notion of a vacuum caused interminable discussions, Parmenides proposed a seemingly unassailable argument, which became popular in his time:

"To be is, not to be is not."

⁹ If we cannot imagine the mechanism of a physical phenomenon, we simply do not understand it. A good way to check if we can imagine it is to try to make a rough drawing of it, which would allow checking a part of its validity. This does not mean that being able to draw something proves its existence, but it is a minimum requirement.

¹⁰ Some may connect this idea with “free space”, which is a concept that means empty of matter (referring to known elements) that is, according to standard physics, unattainable because there is always some kind of elementary matter, whether an atom, a photon, etc., in a volume of space. But the question we are discussing in this chapter is more whether or not there is a physical background fabric of space or is it absolute emptiness containing these elementary particles.

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Of course, there is nothing better than a tautology to point out the obvious – or the meaning of words, for that matter. What this means is that “nothing,” or absolute emptiness, cannot exist!

Unfortunately, this particular tautology, which is impossible to circumvent, was abandoned when Rutherford’s atomic model came forth. Rutherford’s model suggested that the atom was mainly a vacuum. This concept was of a vacuum was a total contradiction to Parmenides’ notion of the Universe.

This “vacuum” gradually came to be regarded as absolute. In comparison to Rutherford’s hypothesis, Parmenides’ argument began, from that point on, to be considered a mere curiosity. However, we are suggesting that to abandon Parmenides’ ideas so quickly was a big mistake.

Let us recover and restate this principle because it is an essential one. "Absolute vacuum" means there is nothing in any given place. But "nothing" means "no thing" or "non-existent!" The paradox is that we cannot say that “non-existence” exists or that “no thing” is a “thing.”

ABSOLUTE VACUUM = NOTHING

and

NOTHING = NON-EXISTENCE

therefore,

ABSOLUTE VACUUM = NON-EXISTENCE

Conclusion: an absolute vacuum does not exist.

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The three equalities shown above indicate that we cannot state the existence of an ABSOLUTE VACUUM without contradicting the intrinsic meaning of the words. Words convey meanings we cannot deny on the pretext that they are mere semantic tricks. Semantics are indeed the very basis of any precise language and the foundation that leads to the formulation of assumptions and to the verification of theories. To ignore this only increases the existing confusion and allow discourses that do not make sense.

That an absolute vacuum prevents the existence of things has been all but forgotten and obscured by wordplay. By replacing "non-existent" with the expressions "vacuum" or "void," we have transformed the negation of existence into the affirmation of an underlying "something", which gives us the illusion of existence. It is a semantic pitfall, which, if ignored, can lead us into error and take us down the wrong path. This is what happened to our ancestors and, unfortunately, this same semantic pitfall has persisted until now. Building the foundation of the house of physics on quicksand and perpetuating this legacy through education has led us to the current state of affairs in which our theories about the Universe are sinking into falseness.

A very important consequence of this new understanding, if we want to follow its logic, is that the Universe is not an empty space containing objects that fill a void. On the contrary, the existence of things "creates" space. This means that a denser object will contain more space, which admittedly may seem very strange only because we are used to the opposite perception. We will shortly return to this concept.

Now that we have established rock-solid framework, we can start building the rest of the foundation. We can now

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answer the question that has appeared unsolvable to many: “Why are there things rather than nothing at all?” This formidable question can be poetically expressed by another famous question: *To be or not to be?*¹¹

Indeed, philosophers and scientists throughout the ages, although they were not questioning the existence of absolute emptiness itself, have wondered, in a general sense,¹² “Why is there something rather than nothing?”

What happens is that wrong postulates have lead the most brilliants scientists to dead ends as Stephen Hawking did:

“The universe can and will create itself from nothing... Spontaneous creation is the reason why there is something rather than nothing, why the universe exists, why we exist...”¹³

The problem with this conclusion is that when you have nothing, you would have nothing forever... Stating that something can come out from nothing is utterly illogical and is relegated to something similar to magic.

However, the answer, as we have shown, is simply that "nothing" cannot exist. Therefore, what exists does not have the choice of existing forever, just as “nothing” does

¹¹ Hamlet (Shakespeare)

¹² It is a fact that the Universe is filled with things (planets, molecules, etc.) we know exist and the question posed by some scientists was whether the Universe could once have been filled with nothing at all.

¹³ Hawking, Stephen, cited in cnn.com, Sept 3, 2010, from book : “*The Grand Design*”:

<http://www.cnn.com/2010/WORLD/europe/09/03/hawking.god.univers.e.criticisms/index.html?hpt=T2#fbid=XONZ2S30moy&wom=false>

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not have the choice not to exist forever! To be is, not to be is not! That is all there is to it!

We are thus forced to realize how extraordinary this new vision of the Universe is in term of answering fundamental questions. The Universe is required to exist without any void and since everything should be linked to everything else, it makes sense for all the parts to be working intrinsically together in a logical manner, like cogs in a watch.

Now that we have defined a solid axiomatic framework, we want to flesh it out by establishing the consequences of such postulates. Let us see where these postulates lead.



II - INFINITY

“More than any other question, that of infinity has always tormented the sensitivity of men; more than any idea, that of infinity stimulated and fertilized their reason; but more than any other concept, that of infinity requires to be elucidated...” -David Hilbert¹⁴

The immediate question that arises, with respect to the above-mentioned three postulates, is: “What type of Universe do we live in?” There are only two possibilities that describe the fundamental nature of the Universe – either it is finite, or it is infinite. Therefore the essential question is: “Is the universe finite and bounded, or is it infinite and boundless?” This marvelous question, which contains two mutually exclusive exact opposites, facilitates the answer because when we are faced with only two exclusive alternatives and no others, it is sufficient to eliminate one to obtain the solution. The answer must reside in the one that remains.

Since the Universe cannot obviously be both finite and infinite simultaneously, demonstrating that one of the two alternatives is absurd should be enough to solve the enigma.

With respect to the first alternative – that the Universe is finite – we can proceed by stating that if the finite universe exists, it would be limited in space and in time, as follows:

- 1) It would have a limited circumference.
- 2) It would consist of elementary particles.
- 3) It would also consist of elementary sections of time.

¹⁴ Cited in Luminet, J.P, Lachièze-Rey, *La Physique et l'infini*, p. 7. (Translation from French by the author.)

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4) It would, by definition, have a beginning and an end, the greatest length of time of all.¹⁵

A finite Universe would have an outward limit beyond which there “would exist” an absolute void, or absolute vacuum. This already leads us to a paradox. Since there is no absolute void,¹⁶ there cannot be an outside limit to the Universe.

Furthermore, the space between atoms would be, according to this finite Universe, also made up of an absolute vacuum! Yet, again, an absolute vacuum cannot exist. The structure of the finite Universe imposes an absolute vacuum and this is precisely what destroys the argument. The finite Universe in space is thus impossible within the framework we have defined.

Using a parallel argument, we cannot envision how a particle could not be composed of smaller particles. If you break a particle apart you inevitably obtain smaller particles that make up the very fabric of the said particle. But, if the smallest particle did exist, it would have to have a volume equal to zero; otherwise, it would theoretically be divisible. Nevertheless, a voluminous universe could not be composed of elementary particles with no volume. Zero + zero equals zero, not two! Moreover, a volume of zero contradicts the Second Postulate. It is not a coincidence that any description of an elementary particle that would be

¹⁵ Does it make sense for a universe to be finite toward the large and not toward the small? Or for a finite universe in space to be infinite in time or *vice versa*? This is not a constructive discussion, as will be shown.

¹⁶ Postulate III.

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non-divisible is intrinsically mystical and is doomed right at the start, logically and also scientifically speaking. Elementary particles do not make sense. They have to be composed with smaller particles.

From this simple demonstration, we can conclude without hesitation that the Universe is infinite in space, i.e. the particles are made up of particles, which, in turn, are made up of particles, etc., in a fractal regression, toward the infinitely small. Conversely, our solar system is a very small part of our galaxy, which itself is a very small part of clusters of galaxies, themselves a very small part of something else, in a fractal progression toward “the large.” This is a simple extrapolation of what we observe in the visible part of the Universe. All things are made up of something smaller and are part of larger things. It is a generalization of the observable.

In between every particle, from the infinitely small to the infinitely large, what would seem to be empty would in fact be filled with “something.” And it is invisible because it exists at the infinite continuum of space levels which is so small that it is imperceptible to our senses and to our most sophisticated and current scientific instruments, such as microscopes and telescopes. However, since perfecting science and making new discoveries are endless, as science progresses, what is currently imperceptible by the eye will gradually become “visible,” thus, making the invisible visible or detectable on an infinite continuum of relative invisibility.¹⁷

¹⁷ Infinity in space is a very strange concept, and we will demonstrate shortly how it can be proven experimentally.

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The temporal existence of the infinite Universe is also infinite, i.e., it did not have a beginning nor will it have an end. Indeed, having a beginning or an end would mean that before this beginning or after this end nothingness or the absence of anything at all "would have existed or will exist." This simply translates to more nonsense! Nothingness only exists as a word but the object it defines excludes itself from the real world by definition: "Nothingness" cannot exist: it is "nothing"!

Therefore, the Universe has always existed and will continue to exist *ad perpetuum*. Furthermore, using the current concept of time for the practicality of this demonstration, "time" within the continuum of smallness will, in an infinite universe, divide itself *ad infinitum*.

A smallest element of time cannot exist because a smallest time would still be divisible; therefore, it cannot be the smallest time. To be clear, a bona fide time cannot be formed from an elementary time equal to zero, which would be the only option for the smallest time to really "exist". Since anything greater than zero is divisible, there cannot be a smallest period of time.

Because this is beyond the scope of this book, no further discussion is required at this time. Nevertheless, it is worth stating that an infinite continuum of space toward the infinitely small implies there must be an infinite continuum of time toward the infinitely small.

This concept of infinity as a whole is not new. As mentioned in a number of ancient writings, the concept of infinity in space was revived by Carl Sagan in his popular book, *Cosmos*.

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"There is an idea – strange, haunting, evocative – one of the most exquisite conjectures in science or religion. It is entirely undemonstrated; it may never be proved. But it stirs the blood. There is, we are told, an infinite hierarchy of universes, so that an elementary particle, such as an electron, in our universe would, if penetrated, reveal itself to be an entire closed universe. Within it, organized into the local equivalent of galaxies and smaller structures, are an immense number of other, much tinier elementary particles, which are themselves universe at the next level, and so forever – an infinite downward regression, universes within universes, endlessly. And upward as well. Our familiar universe of galaxies and stars, planets and people, would be a single elementary particle in the next universe up, the first step of another infinite regress."¹⁸

A beautiful description!

We may not yet have experimental evidence of the Universe being infinite in space and in time, but between two types of non-proven universes, we choose the one that makes the most sense. This is a completely acceptable process.

We suspect an experimental proof that the Universe is infinite in space is possible, and that this proof will involve recognition of the repeated structure of particles of all sizes. If galaxies or clusters of galaxies do in fact represent atoms of a much more gigantic world, it will be possible one day to observe that the configuration of these atoms does form recognizable molecules as such. The same reasoning can be applied for small particles that compose our universe. If atoms are in fact small galaxies or clusters of galaxies, it

¹⁸ SAGAN, C., *Cosmos*, Montréal, Sélect, 1981, p. 265.

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will be possible one day to observe the characteristic behavior of stars and planets involved in the formation of these particles. Until then, due to lack of empirical evidence, it is better to trust what makes sense. Because this depends on the brains of those who contemplate such possibilities, as always, it will be a matter of opinion.

If some people purport to have scientific evidence of the Universe being finite, we may later discover these proofs to be mere illusions. Sadly, many people do not differentiate between the interpretation of a fact and the fact itself. For this reason, many so-called “proofs” will turn out to be mere interpretations of certain facts. While a fact can often be interpreted in different ways, one interpretation could have been chosen simply because it supported a finite universe, the underlying philosophical postulate of many theories. Otherwise stated, scientists who are looking for a beginning or a starting point will have a tendency to interpret facts based on this premise. Of course, looking for a beginning in anything suggests that the model that will be chosen will imply finiteness.

One reason the concept of an infinite Universe does not attract a great number of people, including scientists, is the limitation of human sensory and cognitive capabilities. We do not hear nor see (not to mention the other senses) beyond a certain distance and therefore, the existence of these sensory limitations influence the way we see the world. Moreover, infinity in time and space is something impossible to imagine. Indeed, the brain is limited in its capacity to imagine space and distance: it cannot, with its limited number of cells, imagine what an infinite distance would look like. The consequence of this is that scientists usually try to stay away from what they cannot imagine.

II - INFINITY

Adding to the difficulty is the mathematical formulation of infinity in theoretical models of the Universe. Because it is difficult to manipulate, physicists would like to discard the concept, but infinity, being as rebellious a concept as it is, always bounces right back.

"Physicists try to eliminate infinity which emerges from their theories: infinitely large time and space, infinitely small matter, singularities of black holes and the Big Bang... but the elimination of infinities leads to more complete theories which in turn generate more infinities. Infinity is a sphinx which questions physics and shows new ways forward."¹⁹

Many philosophers and scientists have written that an infinite body is unconceivable. Perhaps it is necessary to differentiate between imagination and logical understanding. Even then, there is a way of partly understanding the concept of infinity through imagination, by understanding the repetitive nature of structures. If the same structures of the Universe are found in the infinitely small and in the infinitely large, the loop is connected and the need to understand can be satisfied by imagining a complete loop while rationalizing the rest. By logically concluding that if, for example, we find the equivalent of solar systems in subatomic particles, then we are clearly looking at an infinite continuum. Hence, it is through the repetitive nature of structures that we will be able to prove infinity through experimentations.

The concept of infinity is indeed puzzling. Imagine for a moment that you want to teach the mathematical concept of

¹⁹ LUMINET, J.-P., Lachièze-Rey, op. cit., p. 62 (translated from French by the author).

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infinity to children who have never heard about it. Their initial reaction will probably be met with incredulity. After all, it is a very strange idea in the first place. Perhaps you recall your own reaction to it when you were young. The same kind of reaction is likely to occur with any person who is told for the first time that the Universe is without a beginning or an end.

However, the impression that the Universe is finite is a persistent one especially because our education has been saturated with either monotheistic religion or the Big Bang concept. Indeed, to teach that God created the Universe can only hinder students' ability to develop critical thinking and restrict intellectual growth. A created universe always needs a beginning,²⁰ but many people do not realize this obvious logic. Furthermore, even if a person rejects his or her religion, what often remains is the perception of a finite universe. Even if one replaces his religious belief with adherence to a scientific theory, the same underlying notion of a finite universe is often an intrinsic part of the scientific viewpoint. Perhaps some scientists unconsciously seek to maintain this idea of a "beginning" when discussing or defending such theories as the Big Bang.

The difficulty the human mind has with the perception of infinity seems to come from the psychological reaction that it triggers thus preventing a logical analysis of the problem. Once we can agree that infinity is the basic structure of the Universe, the logical consequences we can draw are quite fascinating. Not only does this agreement make it possible to exclude other models that imply a finite Universe, it may

²⁰ More is written on this subject in this chapter.

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also enable us to explain what was previously nothing more than a mystery.

One major logical consequence of understanding infinity is that the proposition that there can be no God that created the Universe. The answer to the question of God's involvement with the Universe is as simple as this: an infinite universe cannot be created, thus there is no God, period!

An infinite universe has neither a beginning nor an end. If there were a beginning to the Universe, defined as "everything which exists," there would have to have been nothing, absolutely nothing, prior to that beginning.²¹ We now understand that "absolutely nothing" cannot exist but, for the sake of our argument, even if it could exist, we would end up with "nothing" *ad infinitum* because when there is nothing, nothing can ever occur, and nothing would "exist" endlessly; there would not be a universe. But again, the concept of nothing is not realistic and would exclude any eventual creation of "what exists." Infinity of what exists is the only possible answer.

The Big Bang theory can also be checked on its basic validity. What was there before this Big Bang? The theory holds that the whole Universe was "compacted" into a small particle. But where did that small particle come from? Did it have a beginning? The Big Bang theory does not answer this question. Neither does science. This question belongs to philosophy.

That is the failure of the very scientists who want to limit themselves to traditional ideas of what being a scientist is.

²¹ This rules out the pre-existence of God.

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They could venture to think outside the box and embrace a new perspective, and be prepared to consider basic philosophically sound ideas, upon which theories and experiments could be built. Therefore, it is likely that in addition to resolving questions relative to the Big Bang theory, they would have resolved the question of the origins of the Universe a long time ago.

If the original particle that exploded in the Big Bang existed, it would be surrounded by an absolute void, since the Universe would be inside the particle and not outside of it. However, this means this particle would in fact be surrounded by emptiness or void, and we are plunging back to the same paradox, which we have already established to be irrational.

Of course, some proponents will say that a "Big Bang" could have happened in one part of an infinite universe side by side with other universes experiencing their own Big Bang. But what was between them? A void? That cannot be. Else if it were not a void, then we are just talking about explosions that occur in the Universe and such explosions do exist as in supernovas. But that is not what the Big Bang theory is all about.

There is a growing body of data and theory that question whether the Universe may have begun with a Big Bang 13.75 billion years ago. Several leading cosmologists, such as Sean Carroll of CalTech and Neil Turok of Cambridge University challenge the prevailing model of a "Big Bang" and believe that in the future we will only look back in wonder at how anyone could have believed in a creation event which was refuted by so much evidence.

The origin of the Big Bang, that is, the state of "existence" which resulted in a Big Bang, is a

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mathematically obscure state - a "singularity" of zero volume that contained infinite density and infinite energy. Why this singularity existed, how it originated, and why it exploded, has led many scientists to question and challenge the very foundations of the Big Bang theory.²²

According to the Yin Yang Universe, there is neither a God nor a Big Bang, but rather Infinity! The belief in both, God and the Big Bang, is based on misinterpretations: the misinterpretation of the Scriptures (such as the Bible or other ancient texts), and the misinterpretation of certain scientific facts such as the radiation of stars shifting toward the red, in case of the Big Bang theory. Ironically, the concepts of immateriality and absolute void give theology and certain scientific theories some commonality, in the sense that both concepts are unreal, supernatural, and are based on the idea that non-material (God or void) "things" exist.²³ These concepts are simply not defined physically, so that phenomena are not really explained and this makes these concepts relegated, to some extent or other, to the realm of mysticism. The philosophical basis we have just established proposes that we eliminate the theoretical venues that lead to immateriality and the concept of void in

²² Kazan, Casey, *Does the Large-Scale Structure of the Universe Nix Big Bang Theory?*, 2010 www.dailygalaxie.com,

http://www.dailygalaxy.com/my_weblog/2010/05/the-big-bang-theory-fact-or-fiction-many-experts-say-fiction.html

²³ Perhaps believing in the concept of immateriality or absolute void comes from a simple psychological reflex, which stems from an inability to visualize any of the operating principles underlying a phenomenon. It is a description of what we see: nothing.

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their absolute sense because both have no rational basis. Why build a house on quicksand when you can build it on solid rock?

In summary, the self-evident idea that there is no absolute vacuum, alone implies infinity in space and time, because all the “space” in between planets, galaxies and particles would not be empty and therefore, should “contain” something that is in turn composed of something else. If we do not see that “something”, it is because it is beyond the limits of our perception.

What is also implied is that every element of infinity should be “in touch” with everything else,²⁴ on all levels, moving and vibrating in unison in a perpetual dance regulated by the laws of motion, which we try hard to understand while observing the visible effects. In an infinite universe, there is only a small, limited part that we can and will be able to experience via our senses and their technological extensions (telescopes, microscopes, etc.) In every era of our scientific progress, there will always be a part of the Universe that will be too small or too large to be perceived by our instruments.

The intangible part of infinity is a kind of *relative* immateriality that has been, and can be, mistaken for absolute immateriality or absolute void. Relative immateriality refers to matter we cannot experience with our senses or our technology. It does exist, however, in the same way that electro-magnetic waves of the spectrum

²⁴ Indeed, since there is no absolute void, what does exist has to be in touch with its surroundings.

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exist but cannot be felt.²⁵ These electro-magnetic waves can nevertheless be measured. Hundreds of years ago, we could not measure these waves but we could only assume that they existed. The same applies to the smallest particles of matter and their associated waves that we cannot yet perceive. Although we will not be able to see the entire Universe (because of its infinite nature), we will continue to see more and more of the matter in the infinitely small (and infinitely large) as our technology progresses. In brief, what is inaccessible in the infinitely small is not immaterial, but represents matter so small that we cannot experience it through our senses and technological equipments...yet.

Is the Universe conscious?

Some believe that the Universe itself is God. But why call it God? Why replace an established name with one that is more ambiguous and that contains all kinds of mystical concepts? An unconscious immanent being is just not a being, it is the Universe itself and we should lose this ultimate anthropomorphic attitude that children have naturally about things surrounding them. For them, every object has a mind of its own and this phenomenon is related to animism, which defines the attitude to assign a mind to objects. For our ancestors, the mountain, the river and the thunder were beings. Some have now applied this to the Universe itself, the ultimate anthropomorphic attitude, but wouldn't this be going backward? Would not be best to

²⁵ Pigeons and some other animals are thought to have a sensation of the magnetic field so they can somehow find their way around. Humans may also be equipped with such faculties but they must be dormant.

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keep things as simple and rational as possible? The word Universe adequately meets all the criteria for simplicity and is open to research.

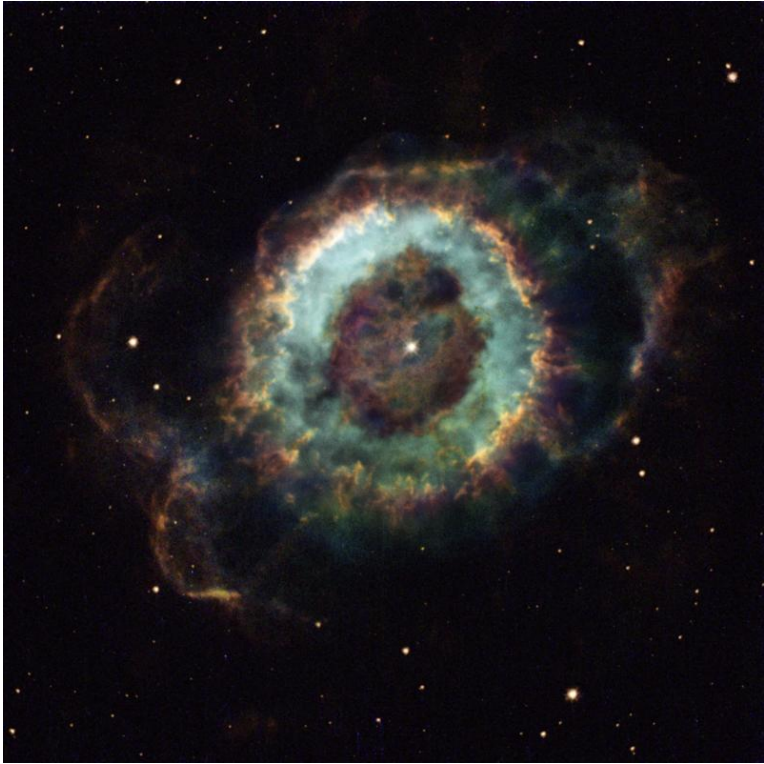
But even for the sake of argument, it is inconceivable to imagine an infinite “body” conscious of itself. Consciousness is a difficult concept to grasp and it implies, at the very least, an awareness of all the parts that constitute the entity. It also implies a kind of information processing of the object of this awareness, in other words, everything that exists. However, infinity excludes such a process. A conscious body must be in a finite body otherwise it has no way of connecting, processing, and knowing its own infinite body.

The only way the Universe can be aware of itself is by way of a partial awareness that is manifested through finite bodies, themselves conscious of parts of their environment but yet found in all parts of the universe. This is precisely what all intelligent beings in the Universe are.

We, ourselves, are pieces of the Universe. The Universe is therefore expressing itself through us. Infinity can only become aware of itself through beings who are part of it everywhere and who are conscious of this fact. When we, conscious beings, look at the stars it is in essence the Universe contemplating itself. We, in fact, are part of the infinite Universe trying to become aware of itself.²⁶

²⁶ Well... for some...

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A new way to conceive of space

What follows from all that has been mentioned is a new way to conceive space and a complete concept reversal. According to the old paradigm, the more objects that exist, the less available free space results. However, according to the new model, more objects will actually result in more space when considering the infinity continuum toward the small in each object. This is so counterintuitive that most people will not grasp this concept right away. Let us attempt to explain it a little more. Firstly, space itself does not exist. Why? Because when we say “space,” we think in

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terms of void and the third postulate is, with good reason, in opposition to such a concept. What we can deduce from this postulate is that **whatever exists creates space**. Therefore, the more “whatever exists” you have, the more “space” you have because space is always made out of something. Because each particle contains its infinitely small continuum it also carries with it its infinite “space.” Moreover, since space cannot exist without a substance, when the density of an area is increased with a substance, it is effectively the “space-matter” continuum that is increased. In fact, the concept of a space-time continuum is replaced by the new concept of a “space-matter” continuum. Each particle carries its own infinitely small continuum and the closer the particles are to each other, the more infinitely small continuums there are within the same theoretical volume of a given level of infinity.

This new concept of “space-matter” continuum is a fundamental principle in the Yin Yang Universe model that will bring us closer to an understanding of the forces of the Universe.

The Michelson and Morley experiments

The postulates formulated in this book imply that interplanetary space is filled with a very fine fractal matter, so fine that our current measuring devices cannot perceive it.

Although a similar idea was widely believed in the distant past – the aether as it was known - scientists supposedly proved it did not exist. However, it is not difficult to explain why the experiments that supposedly proved its non-existence do not apply in this context. Suffice to say, for now, it was believed the aether was static, (i.e., it did

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not move) and the experiments that tested its existence were based on this assumption. Moreover, if the aether is actually moving, the interpretation from these experiments cannot be conclusive.

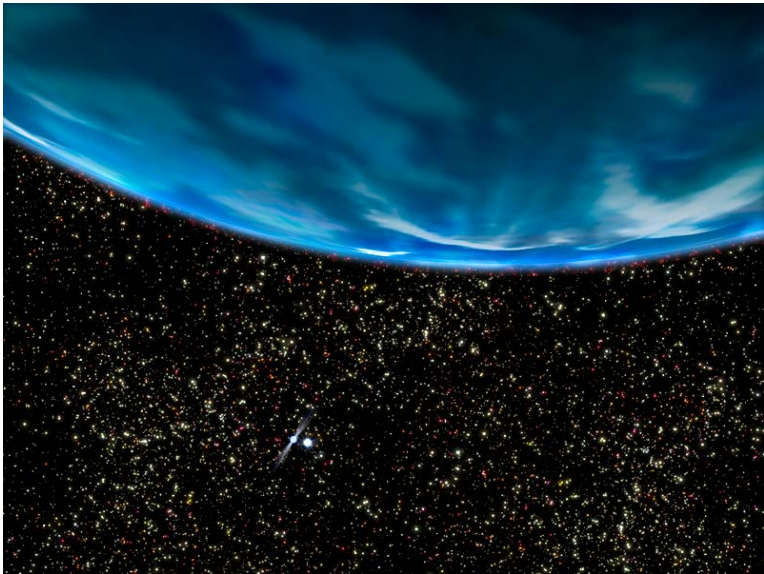
The group of experiments, which effectively rejected the proposition that aether existed, was an unfortunate turning point in physics as it led scientists to an impasse and helped Einstein establish his model based on the vacuum of space. At the end of the 19th century, it was almost correctly postulated that light must be a vibration of a matter called *luminiferous aether* which fills the vacuum of space. This proposition made perfect sense philosophically (except for the vacuum part). The problem, as briefly stated above, is that it was wrongly assumed the aether was static. This is an example that shows how important postulates are. Wrong postulates can make one reject something real or accept something wrong.

To test the idea suggesting that light is a vibration of aether, Michelson devised the first experiment, which was later also used by Morley and himself in subsequent, more accurate experiments. The basic principle of this type of experiment was to measure the relative aether “wind” as the earth orbits around the sun and the sun around the galaxy, assuming the aether is static relative to the sun. Michelson and Morley built an interferometer that measured the light from the same source split into different directions (except perpendicular to the ground) and then collected it back to read the possible frequency interference that could be attributed to the aether wind.

Michelson’s first experiment was not conclusive but the one conducted in conjunction with Morley was accurate enough to show that the frequency interference observed

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was far too small to be interpreted as evidence of the existence of aether. More experiments that supported the specific conclusion of the non-existence of aether followed. As noted, all these experiments were based on the false assumption the aether was static. This conclusion did send scientists down the wrong path when they discounted the existence of aether itself. We will show later that a substance resembling aether is, in fact, not static, and that it moves in a way that actually explains independently the results in these experiments.

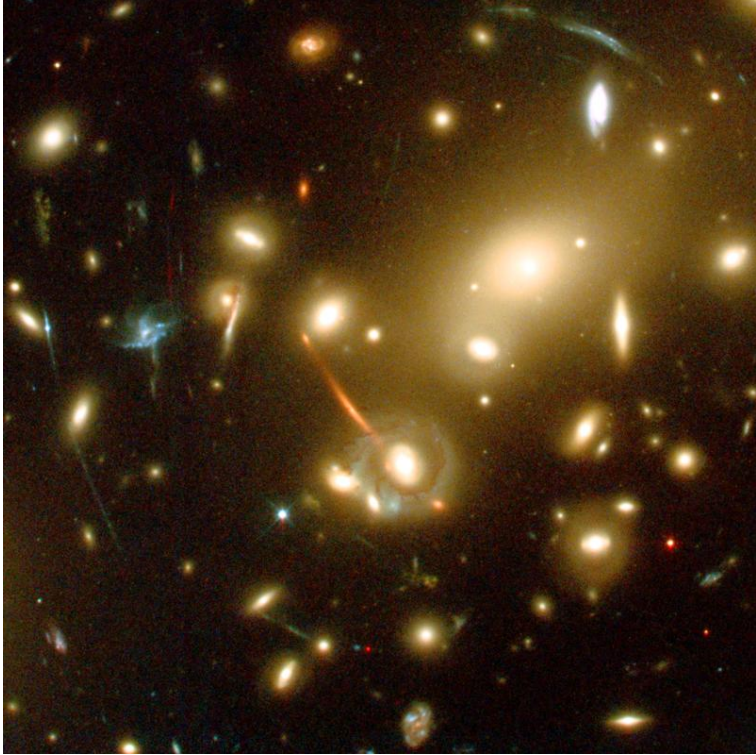


The dark night sky paradox

According to Olbers' paradox (dark night sky paradox), the night sky of an infinite universe should be bright because we should see stars everywhere. In an infinite universe,

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there are an infinite number of stars, and they cover the whole night sky and result in the night being bright.



In 1995, the Hubble Space Telescope allowed scientists to observe a very small, completely dark patch of the night sky over the course of 10 days. The resulting images were very humbling; the astronomers could see around 3,000 galaxies that had never been seen before.

As we will show in a moment, the way in which the argument of the dark night sky paradox was constructed is completely wrong. The significant question here is: why

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can we not see stars and even galaxies for that matter that are really there in the dark patches of the night sky? Whether the Universe is finite or infinite is irrelevant to this question. The answer, of course, is simple. They are too far away from us to be seen with the naked eye. Indeed, the farther away a dot of light is, the smaller it becomes. The number of photons and the density of radiation emitted by a particular star are limited and finite. As the light increases its distance from the target (our eyes), the density of radiation decreases and the photons become sparser according to the inverse square law. There is therefore, a critical distance where the scarcity of photons is too great and no photons reach our eyes or a sensor apparatus in a short time, unless a camera is used to record the accumulated photonic hits during a longer period of time (duration of exposure).

If we drew a sphere around the Earth, where the radius would correspond to the critical distance beyond which we cannot see the light of a star with our eyes, we would observe something critical: seen from the center, there are not enough stars to fill the inside of the theoretical sphere to entirely whiten the sky with stars. This is why the sky is mostly dark, and why the bright sky paradox is incorrect.

There is, in fact, no paradox. Thanks to the Hubble telescope experiments, it has been established that we cannot see distant bright objects unless we increase the exposure time of a light recording device. This is true whether the Universe is finite or infinite. Therefore this argument cannot be used in a debate about the infinite or finite nature of the Universe.

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Zeno's paradoxes

Zeno posited a number of paradoxes with respect to movement that have perhaps not, to date, been satisfactorily resolved. But it is possible to do so using the concept of infinity.

Essentially, all of Zeno's paradoxes are variations of the same principle. He believed everything is one and that there is no plurality. He also believed that motion is nothing but an illusion.

Firstly, we agree that everything is one, but this does not mean "one" has to be uniform everywhere. Non-absolute emptiness is equivalent to absolute fullness, and since everything is interconnected, infinity is one, but in different densities and movements.

We will use his "dichotomy paradox" to illustrate an approach that does effectively allow us to resolve the paradoxes. The dichotomy paradox attempts to demonstrate that it is impossible to move from point A to point B. Zeno stated that in order to go from point A to point B, you had to walk half the distance, then half of what was left, then half of what was left, etc. But this meant that you would never actually reach point B, because in an endless or infinite loop you would constantly have to cut the remaining distance by half.

However, this argument only proves infinity. It does not prove that movement is an illusion. What Zeno described was nothing more than a "zoom in" movement, taking us to the infinitely small. This is similar to what happens when you look into a camera and zoom in to enlarge the view or when using a microscope and zoom in on an object to view its molecular structure. As you can see, this is entirely

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different from the movement you would normally see when you go from point A to point B. When you walk, you do not zoom into the infinitely small, but simply move at the same level or dimension of infinity.

Consequently, there is no paradox. Zeno's paradox is itself an illusion that further confuses people into mixing two types of actions: zooming in and simply moving. Once understood, the idea clearly supports the concept of infinity.



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Gravity

Every living entity feels gravity and we, humans, do not usually pay much attention to it. It is simply a part of life. Without gravity, however, there could be no planets and no stars. Indeed, gravity forces pieces of “space-matter” to move toward one another to form larger space objects from asteroids to planets, stars, galaxies, and so on. Many thinkers and scientists have tried to explain how gravity works but do not seem to be able to do so. They can only estimate, by means of mathematical formulae, the acceleration at which an object will fall or two objects will go toward each other. Newton discovered an essential approximation of this, and also realized that there was a connection between the movement of the moon and a falling apple,²⁷ both being under the influence of the same force.

Again, how ironic that we know how myriad things function, but still do not fully understand this essential piece of the puzzle. Yet, we may now be at a turning point! To understand how gravity works, we need to add a few more postulates to those presented in Chapter I.

If we take a sample of the Universe that we can see and touch (via our senses or by means of scientific instruments such as telescopes and microscopes), we notice the only principle that can be observed regarding an object’s change of direction and/or velocity is the action of “pushing.” When we throw a ball, we are pushing it. When a car moves, the tires are actually pushing against the road, regardless of whether it is a front- or rear- wheel drive. A horse pulls a carriage, but it actually pushes on its harness.

²⁷ According to the story.

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When we pull a door we actually push against the back side of the door handle. Whenever we say “pulling,” what it actually always means is that we are pushing the object in some way. This applies to all actions of pulling.

The action of “attracting” or “pulling” in magnetism is not visible and no observation, even with our most accurate instruments, has ever shown any mechanism of attraction. No one has ever shown in any concrete way how the principle of attraction works. It is a concept that simply names the *forces* between objects, as they approach one another. It does not describe the inner workings of these forces.

In order to solve this mystery, we will expand upon what we know about the Universe (the part of the Universe we are able to experience through our senses or by means of scientific instruments), and generalize it to the Universe as a whole. We will assume that the Universe is one (a consequence of infinity) and obeys the same general and basic principles everywhere as long as they are sufficiently essential. This, we hope, will allow us to apply our views concerning the observable part of the Universe to the Universe as a whole.

This way of proceeding is not new; it is standard practice in science: scientists perform experiments using representative samples of a population of objects or people in order to generalize their conclusions to that population as a whole.²⁸ This is, therefore, an acceptable methodology and we will use it to assume that our sample is

²⁸ Scientific experiments also draw conclusions using probabilistic confidence intervals, which cannot be applied here.

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representative of the entire Universe; it will be the framework for the following postulates, and represented in the fifth one.

Fourth postulate:

The Universe obeys the same essential principles of movement everywhere, as long as they are sufficiently essential.

Fifth postulate:

What we can experience with our senses and our scientific instruments constitutes a large enough representative sample to allow us to generalize the results as they apply across the entire Universe.

Sixth postulate:

An object only moves or changes in velocity because it is pushed.

Therefore, if we see an apple fall from a tree, the sixth postulate leads us to conclude that it is pushed. But pushed by what? We know it is not the atmosphere. What else could it be?

Even though they could not see it, our ancestors inferred the existence of air from physical experience: they stated the effects it caused, and they could feel it. Following this first inference, they further deduced that the cause of the movement of leaves in trees, for instance, was small and invisible particles (air). Indeed, being able to feel the wind was helping to deduce its existence.

The same could be said of gravity. We do see the effect of gravity and we do feel its effects, but not on our skin. We do not feel gravity on our skin's touch receptors in the same way we feel air but we do sense it indirectly, perhaps

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because there is something pushing down on each atom of our cells and we feel the pressure of the cells on each other.

Since gravity is acting in a relative vacuum containing nothing identifiable yet, we can only conclude that, given the postulates, invisible matter acts on objects to create gravity, giving the illusion of an *immaterial* force acting in a vacuum.

The only possible alternative we can imagine to explain the mechanism of gravity is that the apple is pushed by invisible matter made of particles so small that it would pass through the atoms of the apple while pushing on the matter inside each atom.²⁹ This is an inevitable deduction, because if it were not for this, and if this matter were at the level of the atom, it would be part of the air, and we know air is not what creates gravity. It is clear we are dealing with sub-quantum matter, and this explains why it passes through the atoms. To use the analogy of a butterfly net in the wind: the net is pushed by air (sub-quantum matter) as it passes through the net (atoms).

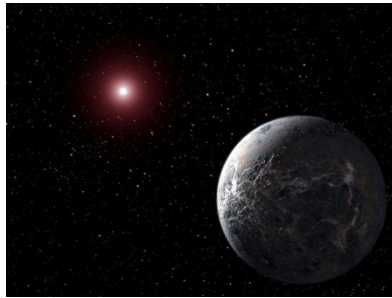
Where does this matter come from? Since objects fall all around the Earth, this matter must exist in deep space, between planets and stars, and move in concentrically toward the center of celestial bodies. An infinite universe warrants the existence of this matter because an absolute empty space, the void or nothingness, cannot exist, as per Postulate three.

²⁹ If the reader is able to imagine something other than what is stated in this chapter while respecting the 6 postulates, s/he is very welcome to take a different route.

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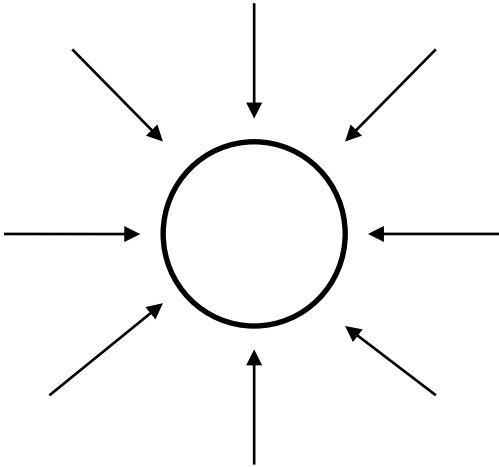
We now begin to see a clearer picture. Interplanetary sub-quantum matter (SQM), as we will call it from now on, penetrates all space objects in a concentric movement and pushes everything into them; the trajectories of objects affected by the same spatial body are concentric to this body (as observed in all experiments). Every object around the Earth “falls” concentrically, when using the Earth’s center of gravity as a point of reference.

Sub-quantum matter penetrates everything that travels to the center of galaxies, stars, and planets. It pushes everything in a concentric fashion. From now on, we shall call this matter with its concentric movement, Yin.³⁰



³⁰ Yin is thought to mean essentially “dark element”, “downward-seeking” and “feminine.” We could not find a better term to define this principle and we will continue to use it to identify SQM having a concentric movement. It is possible that Yin was originally used to define this very principle, that the knowledge was lost over time, and that we are simply rediscovering it. The feminine part of its meaning is a poetic description and is associated with “creation” of matter, which is what we will discover later in this book. Scientists have concluded that invisible “dark matter” exists somewhere in deep space and could be associated with the “dark element” of the old definition of Yin but since the expression “dark matter” is part of current cosmologies, we will not use it.

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We stated previously that it was believed³¹ a similar interstellar substance called aether existed but, because it was thought to be static, the concept was erroneously rejected through Michelson-Morley experiments. SQM has an infinite structure that distinguishes it from previous concepts of aether. It also moves concentrically toward planetary bodies and could not have been detected in the manner in which the Michelson-Morley experiments were conducted at that time. In fact, if Michelson and Morley had taken the direction of the concentric flow of SQM into account, they would have tested its existence positively and theoretical physics would have taken a different course.

But why does SQM penetrate dense objects? The Sixth Postulate leads us to conclude that SQM is pushed or under pressure. But again, why does it enter space objects? To

³¹ Newton stated that the idea a body (planet) could influence another body if there were an absolute void between the two is philosophically illogical. We could not agree more.

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answer this question, we must remember that with the new paradigm, matter is not dispersed throughout empty space; matter creates space! We have used the expression “space-matter” to describe this concept, which conveys the idea that there is more space-matter in denser objects. SQM enters denser objects because they constitute a kind of “hole” in the Universe; denser objects contain more space-matter within them. In other words, there are more elements of infinity in denser objects, which creates the condition for the movement of SQM. This is a very important concept, and is the basis of the Yin part of the Yin Yang Universe.

Light

We will infer that SQM “carries” light through its self-vibration mode because light possesses a vibratory component and nothing other than SQM can carry the vibration. We would imagine only the crest of SQM waves would be visible to the human eye. This means SQM would be invisible except at the moving condensation point of the waves, i.e., where the oscillating particles of SQM periodically move closer to each other and their point of condensation becomes visible. At this condensation point, SQM will behave like particles, being the top of the waves, so to speak. The facts show that light does indeed behave like waves and particles.

This makes more sense because the vibration of emptiness makes absolutely no sense. We have had enough esoterically driven concepts since Einstein. Let us return to the point where we diverged and went down the wrong path. Vibrations are the result of movements of a medium and therefore without a medium there can be nothing to

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vibrate. The two go together in the same way that air and sound do – there can be no sound without air, since sound is the result of air vibrating. The same is true of all matter: vibration is the result of matter in movement.

Because light is a vibration of SQM, it travels with its flow. Light is “curved” by gravity because SQM - and all its vibration modes, light included - travels to the center of planetary objects. This light-curving vector simply shows the direction of the movement of SQM which is the medium in which light is vibrating, and thus fits with the Yin principle.

We are now at a cross-validation point: our model directed us to infer the existence of SQM which in turn allowed us to infer a concentric movement causing gravity. We therefore inferred that light was an effect of SQM in vibration and this all fits with the observed fact that light is curved by gravity, which in fact is explained by the concentric movement of SQM (Yin).

The speed of light: a constant?

Light has a speed that is as constant as the speed of sound. First, nothing is absolutely constant in an infinite universe since everything is influenced by its surroundings. Obviously, the speed of sound is affected by the wind. When using a planet as a point of reference we should expect the same for the speed of light such that it is being modified by the flow of SQM.

The speed of light is associated with its medium, SQM, and we should expect some similarities between sound and light. Both are the result of vibrations, but travelling through different mediums in terms of particles' size and everything that is consistent with this.

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Therefore, light travelling out perpendicularly from the surface of a planet should travel more slowly than light travelling in the opposite direction i.e., toward the planet.

Incidentally, the difference between the two resulting speeds should enable us to deduce the average speed of Yin between the two points of observation.³²

Simultaneity in communication

There is no such thing as absolute simultaneity. It is an illusion. An object cannot communicate with another object simultaneously or instantaneously because the information has to be communicated through some mediums, hence it will require time to travel. If communication occurs by means of a wave, as is almost always the case, the speed of communication will be independent of the speed of the object's communication source and if it were moving. However, as we have stated earlier in this book, there are an infinite number of layers of mediums between two objects (going into the infinitely small) and each of these mediums has its own wave speed signature that is part of an infinite continuum of wave speeds: the smaller the particles composing the medium, the faster the speed we can expect from the mediums' properties. The Universe is organized in such a way that communication between two objects takes place on many levels of the infinitely small, and therefore information can travel on multiple levels, or rather on an infinity of levels. Thus, communication can always occur at a faster rate than that which our measuring instruments can record and therefore appear to be simultaneous.

³² Yin is SQM accelerating toward bodies as we will show in the Appendix.

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The speed of light: it is not a limit

Einstein corrected the old notion that speed could be added to the speed of light. He introduced the idea that reflected or emitted light from an object will keep its signature speed no matter whether the object moves or not:

Thou shalt not add thy speed to the speed of light.³³

He deduced this idea from his famous simultaneity paradox in one of his well-known thought out experiments. He could resolve this paradox by stating that the speed of light was independent of any object. Because he believed light was able to travel in a complete vacuum, it forced him to state this was due to a law of nature. In doing so, he “resolved” one aspect while obscuring another. Indeed, a law of nature is an unexplained one if nothing more significant is said...

Since one could not add to the speed of light even in what was believed to be a vacuum, he deduced that the speed of light was speed’s “natural” limit solely by virtue of the structure of the Universe.

Thou shalt not travel at or beyond the speed of light.³⁴

These mysterious “laws of nature” did not explain the causality of things but were statements that were analogically close enough to reality to allow accurate predictions. The confirmation of Einstein’s predictions occurred at a time when the Michelson-Morley experiments convinced the scientific community that aether did not exist. This led to the scientific community choosing

³³ Sagan, *loc. cit.*: p. 200.

³⁴ *Ibid.*

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Einstein's path, one which carried a surreal view of the Universe where waves travel in a vacuum without being carried by a medium substrate and where vacuum "time-space" can be curved³⁵ by unexplained "natural" forces.

What surreal discourse! Believers in this concept of the Universe probably do not realize how mystical this view is. They have lost sight of the way science is supposed to work: take away the mystery, not amplify it. But we suppose there were no other solid options at the time.

The simultaneity paradox at the heart of Einstein's questioning on the speed of light is not a paradox because light is a wave produced by a medium and cannot go beyond its own speed much like the sound produced by the vibration of air. An airplane will not add its own speed to the speed of sound and this analogy, along with the fact that absolute emptiness cannot exist, supports the idea that light is the vibration of a substance, SQM. In view of this new understanding, we could state:

Thou shalt not add thy speed to the speed of light
except the speed of SQM.

To give an analogy, this means only the speed of the wind can be added to the speed of sound (speed in reference to the ground).

It is not because of an inexplicable law of nature, which is not what science is all about, that the speed of light cannot be added to the speed of an object but rather because it is a

³⁵ How can a vacuum or absolute emptiness (which we have demonstrated does not exist) be curved? Nothing is "not existing" and cannot be curved!

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speed propagated through a medium that we have called SQM.

The statement that nothing can travel faster than the speed of light started gradually to become a “religion” when Einstein’s vision of empty space was “confirmed” by Michelson and Morey’s experiments that the aether did not exist and later on when his prediction that light is affected by gravity was proven to be real.

In short, Michelson and Morey’s experiments contain serious flaws and we have shown they did not demonstrate anything. These same experiments could actually be used today to support the idea of the existence of SQM when accounting for the direction of its flow. Moreover, light is affected by gravity not because “empty space” is curved but because it travels with the flow of SQM since it is a vibration that is part of it.

Parallel to this, we observe that the speed at which sound travels is inherent to the property of air. The vibratory properties of SQM allow light to travel of lot faster than sound because SQM’s particles are at a smaller level than air when considering the continuum of levels toward the infinitely small. The vibrations of sub-quantum matter travel faster because the particles that form it are smaller and closer to each other; they are much more active and are spinning much faster. They communicate their movement faster thereby increasing the speed of the wave. Therefore, what should we expect concerning the speed of the vibrations found in the layers below the level of sub-quantum matter that light is using? We should expect the lower levels of the fractal Universe to have associated wave speeds that are increasingly faster as we move toward the infinitely small.

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The vibrations of these various layers would result in decreasingly small waves with increasingly high speeds, and because the number of layers is infinite, this would go on ad infinitum. Speed is related to the level or type of waves, and because vibrations exist on all levels of infinity, it makes sense for this speed continuum not to have a limit.

It seems the legitimate refusal to admit immediate action remotely forced some to admit there is a finite non-null time for which an event is transmitted from A to B. This idea left philosophers and scientists with no other choice than to admit that “speed” has to be limited, as they perceived it. This was therefore further confirming that the speed of light constituted a limit, or so they thought.

Though it is true a speed cannot be infinite, a continuum of speeds can, on the other hand, be infinite. Firstly, it is true that information can be transmitted from A to B in a finite time because the movements responsible for this communication are made in a succession of non-null finite times. Secondly, since we live in an infinite universe, the result of the potential communications between A and B could be accomplished on all infinite levels of vibrating matter; these communications occur in an increasingly faster period of time as matter decreases in size according to the levels in which they exist towards the infinitely small. In conclusion, it is true that an infinite speed does not exist, but rather an infinite continuum of speeds. A “light” but important nuance!

We will be able one day to measure micro vibrations that are much faster than light since these will be vibrations of much smaller matter, on a much smaller scale. But first things first, once we begin to see the matter which creates light waves, a new world will open up, a new “ocean” will

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be discovered: SQM. Perhaps a group of scientists will think of this newly discovered matter as the smallest matter that exists, but as demonstrated earlier, from a philosophical standpoint it will be a dead end.

We can state that having established the non-existence of an absolute void heightens the discriminatory power of validation with respect to models of the Universe. Besides the new understanding of how gravity works, we have added another principle: **there is no limit to speed.**

We would gain a great deal by interpreting scientific facts according to this new Yin Yang paradigm. However, the fact remains this Yin Yang paradigm is in harmony with an old and solid principle: **nothing is lost, nothing is created, and everything is in perpetual transformation.**

Mother Earth

Let us recall that the Universe is not an empty space with existing objects (matter) in it. This is an old concept that must be rejected as it leads us to paradoxes and dead ends. The Universe is infinite and varies in density. Everything is interconnected on all levels of infinity.

The Universe is made of infinite matter of different densities and layers of lower levels (SQM from instance) that are pushed toward matter of higher levels (objects made of molecules for instance), which contains more infinite space per “volume”, or more space-matter. This is called the Yin movement. Yin is not limited to SQM approaching galaxies, stars and planets; it exists for the cohesion of molecules and atoms, and all the particles that compose them (protons, neutrons, quarks, electrons, etc.). This means that while SQM penetrates the center of stars

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and planets (Yin), it also penetrates the atoms of molecules and every particle of the infinitely small. It continues its penetration inside each smaller particle that constitutes the matter of the preceding level of matter, thus descending into the infinitely small.

The Yin movement thus holds all particles of the Universe, from the infinitely large to the infinitely small, in one infinite Yin continuum. There are no four fundamental forces, as previously thought! There is, instead, an infinite continuum of fundamental concentric movements pushing on objects. These are all united in one principle: Yin.

There is a reason for SQM to move concentrically: SQM is under pressure by the after-effect of Yang, the other type of movement that will be explained in the next chapter. The pressurized SQM flows in the direction where the pressure is lower and the locations of lower pressure are where higher level of matter exists in the hierarchy of the infinitely large. These locations contain more infinite space-matter that are stars and planets for instance. These spatial bodies act as “holes” where the SQM goes through because the SQM is pressurized.

However, because of all the SQM that pushes in all directions on a given object in space, such as a planet, the SQM will, at its center, reach a level of pressure that will allow itself to transform into atoms and molecules. Somewhere in the center of an astronomical body, SQM is compressed into particles of our “visible” level of infinity: atoms and molecules. SQM is continually transformed and that is partly why it always moves toward the body. This process, whereby SQM is transformed into atoms and molecules, is similar to the process by which a gas is transformed into a solid, except that it is SQM that

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transforms itself into atoms and molecules at the center of a planet or a star.

In a sense, interplanetary bodies act as a kind of matter-integrator generator. The origin of volcanoes could be reconsidered in light of the new model. It could be said that the surplus of matter created inside our planet, taking the shape of lava, has to go somewhere: it will expand slowly at its core toward cracks in the continental plates and will ultimately be ejected due to the pressure created by the new matter, itself generated out of “compacted” SQM concentrated at the center of the planet.

In other words, a part of the smaller matter is compacted into itself and creates the larger³⁶ matter. Planets and stars should grow from the inside. Our model predicts this. Current theories about the origin of volcanoes were formulated on the basis of old assumptions and theories, and if this particularity of the model we are proposing has some kind of validity, theories about volcanoes will have to be reconsidered. One way to verify this could be to compare the total planetary lava flow per period of time per planet. Because the Yin is also providing a relatively constant flow of SQM to make this matter-generating process,³⁷ the total lava flow should be relatively constant

³⁶ Interestingly, the creation of matter at a higher level is somewhat what the descriptor “feminine” represents within the ancient definition of Yin, and this fits perfectly with the principle of physics we are establishing here. It could be that this principle has been discovered or revealed in the past.

³⁷ Although the flow has a tendency to decrease slowly with time as we will explain later. But, this can also be modified by Yang; therefore it is not as simple as stated here.

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when examined over a well-chosen period. In addition, it should be proportional to the Yin intensity of a planet, which is big enough to generate matter at its core. The bigger the planet, the higher would be the total output of the lava per period of time.

In addition, all kinds of material, such as dust and meteorites, “fall” on celestial bodies so that these also grow from the outside. The latter point is already known by scientists and is simply an accumulation of the current level of matter to form the next level of matter (atoms and molecules to planetary bodies).

Smaller planetary bodies that do not reach the critical pressure of SQM to integrate smaller matter into larger levels of matter still receive Yin. This occurs because some of the infinite matter composing SQM is integrated from lower to higher levels of matter somewhere inside the atoms of these bodies, *ad infinitum*, i.e., toward the infinitely small. There would be no lava created inside these bodies and the speed of Yin (concentric movement) would not be strong enough for this to happen.

In our level of infinity, these space objects that reach this critical Yin speed (causing sufficient compression in the center to create new matter of a higher hierarchy), can be called planets and stars,³⁸ while smaller ones that do not reach this critical Yin speed can be termed asteroids.³⁹

³⁸ A star is a planet that is big enough to get a proportional Yin pressure that is intense to the point of igniting the planet into a star.

³⁹ This could be a determining factor in differentiating between a planet and an asteroid; the distinction in the current definition is somewhat vague.

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In summary, there are an infinite number of levels of matter in SQM, as in everything else. SQM is composed of particles that exist because of the Yin of a lower level of SQM, including all the other levels toward the infinitely small. When SQM of the Yin of a planet hits the surface, while a part of SQM continues its movement toward the center of the planet, the other part enters each atom forming the Yin of those atoms, then moves toward the particles forming the atoms, each using a smaller level of matter of SQM.

The Big Bang

The redshift is a shift toward the red section of the electromagnetic spectrum and can be caused by any increase in wavelength of electromagnetic radiation, as described in textbooks. One phenomenon that can cause the redshift is the Doppler Effect, i.e., the increased wavelength of an electromagnetic radiation source that is moving away from the observer.⁴⁰

Since most stars and galaxies have a redshift, and since estimated distances⁴¹ to them are fairly closely proportional to their redshift, physicists have often been drawn to the interpretation that the whole Universe would have been a very small dot that exploded in a Big Bang, therefore creating the Universe and beginning its expansion process, thus producing this redshift. There are other effects,

⁴⁰ The Doppler Effect occurs through sound and is another similitude between sound and light, which supports the idea that light is a vibration of matter existing in space: the SQM.

⁴¹ Measurement of distance and red shift are both based on inference therefore the argument is somewhat weak.

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however, that can produce a redshift, such as scattering and optical effects⁴² for instance.

Since we now know that space is not empty (filled with SQM, gas, dust, etc.), it may be that the redshift is caused by the indirect effect of long-range vibration of SQM, in addition to the interference due to gas and dust of all kinds. Normally, the more distant the source, the more redshift we will find without it necessarily being caused by an expanding Universe. But dust and gas would also factor in to lower the redshift and, hence, decrease the relationship between the intensity of the redshift and the distance as dust and gas would not necessarily be uniformly distributed, especially at relatively close range.

With regard to sound, it is a known fact that lower frequencies travel farther than higher frequencies. This fact has been observed by the military, i.e., the sonar, which uses lower frequencies for long-range capabilities. Radio waves of lower frequencies can also reach a longer distance.⁴³ Since we assume that radio waves and light have the same medium (SQM) and since red is the lowest frequency in the visible spectrum, we should expect to see more of the red than any higher frequencies emanating from distant stars. As a general rule, at greater distances there would be more of the lowest light frequencies, which are found at the red end of the spectrum. Other than

⁴²Burbidge, Geoffrey, Noncosmological Redshifts; *The Publications of the Astronomical Society of the Pacific*, Volume 113, Issue 786, pp. 899-902.

⁴³ Radio waves of lower frequencies seem to be less affected by the phenomenon called "absorption." It could be that we find this phenomenon in all vibratory environments.

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distance, the density of noise between the source of light and the observer could also be a contributing factor in allowing more of the red than any higher frequencies. This seems to be a property of vibratory environment, whatever it is: air, water or SQM, and it should easily explain why light from stars have a redshift.

Radio telescopes have emphasized a faint glow associated with cosmic microwaves, and scientists have found a way to interpret this in a way that supports the Big Bang theory. It is viewed as an “echo” of the original big bang...

But since SQM is at the sub-quantum level of matter and below, it is obvious that it emits waves because everything vibrates. This faint glow could be evidence of the presence of SQM. But again, scientists who prefer the Big Bang theory and a void universe tend to interpret this particular fact in a way that supports their theory.⁴⁴

One factor that may have helped the Big Bang theory gain such wide appeal is that it provides an explanation for a beginning of the Universe, which is more philosophically comfortable to many people than the idea of a Universe with no definable starting point. This is why so many facts were interpreted in such a way that it would support the Big Bang theory. Because this explanation is now so well anchored in the minds of scientists, it is the interpretation that currently prevails. As a result, all other explanations of

⁴⁴ It is possible to revise all the facts associated with the Big Bang in view of the new model we are proposing in this book. But that is beyond the scope and objectives of this book. Objective and open-minded readers can themselves search for other interpretations that are supposed to support the Big Bang theory but would end up supporting the present interpretation

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the redshift, aside from the Doppler Effect, have been neglected or marginalized. It is likely the prevailing interpretation will be around for a long time or until another generation comes along with another way of thinking. The fact that many people think the Big Bang is an established fact shows they are unaware of the process of how a particular theory is adopted.

First, an interpretation of a fact is not a fact, no matter how many scientists support it. Let us not forget that a majority of scientists supporting a theory is not necessarily a criterion of validity of the said theory. Very few people are bold enough to go against the majority and this is why it is so difficult to make a paradigm shift. Indeed, those who love the truth more than themselves are the ones who make the paradigm shift but they are rare.

Second, people forget that choosing one scientific theory over another is not necessarily science; the majority of scientists, in some ways “vote” for it. In addition, when scientific publications gradually begin to reject articles that oppose the prevailing theory, this simply slows down the process by which the theory might otherwise be questioned, and perhaps ultimately be rejected and disappear. To put it bluntly, there is a significant political factor in the practice of science that hinders the rethinking of current paradigms.

Relativity

When the theory of relativity discusses the dilation of time, it states that “time” can be modified relative to the environment. We honestly do not know what “time” is. However, perhaps we can point out what it is not.

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It is said that an atom at high altitude will have its own “time” moving at a faster rate than it would at a lower altitude. Experiments were performed in which atomic clocks were set at high and low altitudes and their “times” were compared. The clock at high altitude was indeed faster than the one at lower altitude.

But what exactly was measured? The experiments actually measured atomic vibrations. Indeed, an atomic clock is no more than a vibration counter/converter device. It translates the number of vibrations into seconds, minutes and hours of a given atomic vibration benchmark.

Since relativists believe space is empty, they cannot imagine anything other than “time” accounting for the difference in frequency between the altitudes (all other things being equal).

We now understand, however, that space is not empty. We can also deduce that Yin travels at an accelerated speed when flowing toward the center of a planetary body.⁴⁵ Therefore, it seems that what modifies the frequencies is not a time difference but some difference in the speed and pressure of Yin. An atom that is submitted to more Yin speed/pressure at a lower altitude would be modified in its shape and consequently be somewhat slowed down in its own rotation. However, the atom would *not* change its shape if there were a real dilation of “time,” similar to what happens when slowing down a video recording. A change in shape should occur because the SQM pressure varies

⁴⁵ This acceleration is in relation to the familiar inverse square law that is associated with gravity, electrostatic, light, diverse types of electromagnetic radiation and even sound ([see appendix](#)).

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with altitude and will apply these pressure variations to the atoms involved. Therefore, time has nothing to do with all this. **The difference in volume or shape of an atom between two Yin (gravitational) states discredits the interpretation which states that “time” is dilated.**

When SQM pressure flattens the atom or makes it a little more cone-shaped, the atom will rotate more slowly and decrease its own frequency.⁴⁶

Now, instead of being submitted to Yin speed/pressure because of the influence of a nearby planet, let us imagine you travel into space going through SQM. You will then experience an effect similar to Yin, but instead of SQM coming toward you, you go toward SQM. This idea can be illustrated by using wind as an example. You can remain stationary and feel a breeze hitting on your face (if it were windy) or drive a motorcycle at the same wind speed in a non-windy environment and create the same wind effect on your face. In other words, you can create the wind effect when there is none, by travelling through the air. Therefore, if we go fast enough into space we will experience an effect similar to the effect of gravity, or the Yin effect felt at the surface of a planet for instance, even at constant speed in a location far from stars and planets. This is because, as we have already established, space is not empty and SQM will pass through the atoms that make up our body, thus creating the same effect as gravity or Yin.⁴⁷

⁴⁶ Should you push a balloon against a wall, the balloon will change its shape, will it not? The same principle exists for atoms that are pushed against each other by SQM (or gravity).

⁴⁷ If we accelerate, the “inertia” effect (later in this chapter) will be added to the effect of relative SQM speed.

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If, for instance, we travel in a spaceship 50 thousand times faster than the speed of SQM near sea level, we will feel cold because an increase in SQM speed will decrease the vibration of our body's atoms through something similar to a thermal effect (misinterpreted as a dilation of time in the conventional model developed by Einstein). To avoid being flattened like a pancake on the hard floor of the spaceship by the enormous flow of SQM passing through the spaceship and the atoms of our biological body, we may have to project an almost equivalent "jet" of SQM in the opposite direction just in the space of our body in order to counterbalance the flow of SQM, thus enabling us to survive (leaving a little flow towards the floor to feel a normal "gravity"). This, however, will further increase the thermal effect on each atom of our body. The push of SQM is only active inside the atom and that is why the integrity of the biological cells of the body is preserved if they were not pushed against the floor or a wall.

Therefore the effect of high-speed space travel predicted by this model is that our body will cool down not because of exposure to colder external conditions, but because of the increased bi-directional flow of SQM affecting all the atoms in the biological cells of the body. Consequently, this will slow down the rotation of atoms (thermal effect) and create a sensation of cold as would be interpreted by the sensorial system of the human brain.⁴⁸ Again, the slowing down of the atoms rotation will have nothing to do with time dilation; they will do so because of the Yin

⁴⁸ We will come back to this cooling effect at the Special Note section at the end of this book.

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pressurizing them into a different shape in turn decreasing their frequencies.

Correction on the Equivalence Principle

By stating that we will be able to reproduce the Yin effect (gravity) when going at a relatively constant high speed into space, we are going to be viewed as heretic! For this to counter Einstein's principle of equivalence or Newton's first law, which states that only acceleration (and not a constant speed) will create an effect similar to gravity, is quite significant. Even though we can already deduce this from actual experiments when interpreted in light of the Yin Yang Universe, more direct experiments will eventually confirm where the truth lies.

Aside from this, there will be no place in the Universe where "a body persists in a state of uniform motion or at rest" because all movements occur in a non-void environment. The direction of SQM flow will always affect movements of bodies moving through it.

The Yin (Yang) model, however, predicts that for an object to move at a *constant* speed (that is not the same speed and direction of the flow of SQM); it will require a constant push applied to it. Indeed, since objects move into SQM, they will slow down with time if no push is added to its own movement.

Deflection of starlight

The Yin movement of SQM directly explains the deflection of starlight by the sun and is the substance from which vibrations form light. Deflection occurs because the flow of SQM is moving toward the sun (Yin), thus transporting the path of light with it. Einstein predicted this deflection

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through the esoteric concept of “space-time curvature” - a kind of immaterial matrix constituting the ultimate fabric of space. As it happened, the theory of relativity demonstrated enough of the movements of the Universe to be able to predict a number of facts, and was consequently accepted by the scientific community.

The concept, however, is flawed. It is nothing more than a supernatural notion because it is based on a fabric of space composed of emptiness,⁴⁹ and therefore it assumes that absolute emptiness exists and can be curved. This is nonsense. As we have demonstrated in Chapter I this type of reasoning defies logic and leads to dead ends, which, in a way, are conceptual traps that prevent us from understanding the physicality of the Universe.

Gravitational redshift

According to the theory of relativity, gravitational red shift is a red shift caused by gravity. Here again, the red shift is not caused by the dilation of time but by the variation of SQM speed and pressure caused by the Yin effect, which, in turn, modifies the wavelength of the electromagnetic radiation that is carried by SQM.

Inertia

Sir Isaac Newton defined “Inertia” in *Philosophiae Naturalis Principia Mathematica*:

⁴⁹ Einstein also assumed a “mathematical” grid forming void. He actually thought that the mathematical “matrix” he was using to represent the universe was the fabric of the universe itself. He believed that the mathematical analogy was real, and this flaw just adds to the mysticism of his theory.

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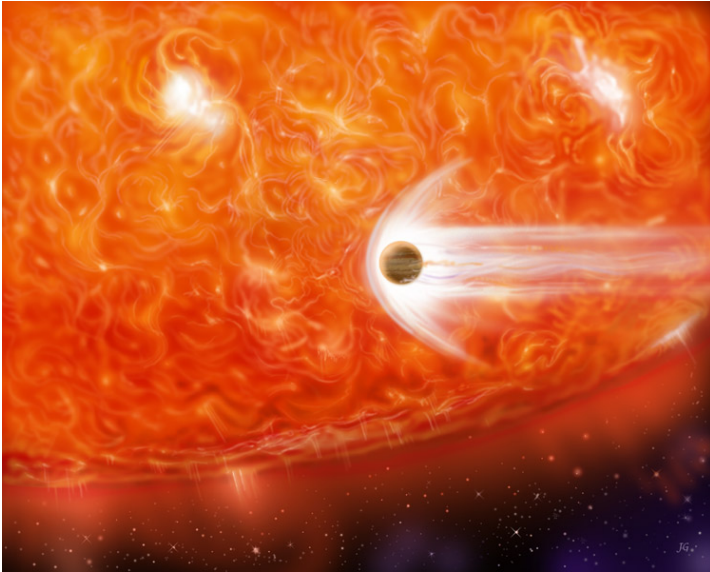
The *vis insita*, or innate force of matter, is a power of resisting, by which every body, as much as in it lies, continues in its present state, whether it be of rest, or of moving uniformly forward in a right line.

But again, this is only a description and no explanation of any intrinsic mechanism is given. In our new theoretical model, inertia is caused by the Yin found around and in each object. The concentric movement of SQM holds the object in place because the push comes from all directions. If 6 people all push equally on a ball in 6 perpendicular directions, the ball will remain immobile. However, if a seventh person pushes hard enough on the ball with a finger, it will move in the direction the finger is pointing. If we ask the 6 people to double the force of their push on the ball (equivalent to doubling the gravitational field and its inertia), this time the seventh person will have to push on the ball a little harder (compared to the first time it was pushed) in order for it to move at the same velocity. This explains why gravity and inertia are directly related and it is why the stronger the former, the stronger the latter. The same principle applies to all objects: the intensity of the Yin is what creates inertia. But the law of inertia should be modified as there is no void but rather SQM and Yin and therefore, nothing is constant or uniform.

Moreover, since nothing is stationary in the Universe and everything, including SQM, is in motion, an object will therefore move with the flow of SQM. If an object is in space and you push the object, you are increasing the push on one side and the object will move in the direction of the push. The push by Yin from the other side is acting against this additional push and the amplitude of the movement resulting from the additional push will be in relation to the

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ratio between the two pushes, or a ratio between the intensity of the push and the intensity of gravity or Yin.



An object that travels in space will slow down with time unless the SQM vectors of push all around the object are uniform, which can only happen when the object moves at the same speed and in the same direction as SQM. This, of course, can only take place for a limited time, since SQM does not have a constant velocity in the absolute and is normally following more or less the law of $1/d^2$ in relation to the closest solar systems or galaxies. Planets are slowing down when rotating around their star(s).⁵⁰ They gradually spiral down into their star because the Yin concentric vectors of push are not uniform all around the planet. They enter faster from the direction in which the planet moves

⁵⁰ Sometimes, there is more than one star in a solar system.

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and in so doing they slow the planet down. In general, nothing is completely uniform in the infinite Universe because there is no emptiness, and everything is connected and in variable motion.⁵¹

As previously stated, because of the Yin found in each object, which causes inertia, part of a planet's Yin SQM is used for the Yin that exists in an object and it will therefore remove a little of the push from the main flow that the planet's Yin has on this object. Therefore, objects may "fall" a little more slowly than expected compared to what the inverse square law can predict.⁵²

A Fifth force?

Some experiments have shown that heavier objects "fall" more slowly than lighter objects in a vacuum (no air). This

⁵¹ One day, when our technology will allow, we will have to "adjust" the position of our planet in order to maintain our distance from the sun, otherwise we will pay a huge price if we get too close.

⁵² This contradicts what is observed on the velocity of Pioneer 1 and 2 as they exit our solar system and seem to "escape" more slowly than expected. They should escape faster according to scientists' calculations and still faster according to the Yin Yang Universe model. One factor that may be underestimated, and one that is completely and involuntarily ignored from the calculations, is that when objects travel away from the sun, as they gradually reach the outskirts of the solar system they are moving away from a more "massive" body than the sun alone; this includes all the planets, moon, asteroids, dusts, and the SQM inside this system. This suggests that the speed of Yin at the outskirts of a solar system is higher than what we would assume if we are only factoring the sun in the calculations. Higher SQM speed means higher push and this, in turn, will slow down objects that are trying to exit the solar system.

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is referred to as the “fifth force”⁵³ by the authors of the experiments. Even though the accuracy of the experiment has been into question, this “fifth force” could be explained by the effect of SQM entering a heavier object at a faster rate, diverting a little more of the planet’s Yin toward the object itself, which, in turn, would decrease the planetary Yin effect (gravity) on the heavy object when compared to a lighter object. The experiments related to this phenomenon should be revisited as they contain some truth to it according to the Yin Yang theoretical model. So it would seem.

Time

“To Be” is the answer and “Not To Be” is not... Based on the Third Postulate and its logical demonstration, absolute emptiness cannot exist, and because of this we can infer that the existence of “things” is forced to be eternal, with no beginning and no end. This means that the statement “to be” has an “eternal” attribute. In other words, the very notion of “being” or “existing” is everlasting. To this end, time is simply the consequence of a permanent state of “being.” The concept of time is the memory of the present that once was and its extrapolation in the imagination of what could be the future.

That which exists, exists now, not before or after, but only now. This “now” has to continue to exist because “emptiness” has no existence and therefore cannot exist.

⁵³ E. Fischbach, D. Sudarsky, A. Szafer, C. Talmage, and S. H. Aronson, *Physical Review Letters* **56**, 3 (1986).

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This means that what exists must exist forever,⁵⁴ and time is the result of the eternal existence of everything. Time, then, is not something in and of itself; it is the indirect consequence of the perpetual existence of things. That is why time cannot be directly measured. We concede that this discussion can easily make us dizzy.

We have seen there is no such thing as time dilation since the vibrations of an object moving at great speeds or under the influence of a strong Yin or “gravitational field” is simply under a greater flow of SQM. As we have explained, SQM has an effect on the vibration of the atoms composing an object, which in turn could easily influence any instrument that measures the vibratory frequency. Hence, there is no such thing as a time-measuring device.

What makes it more difficult when it comes to infinity is that there is no definite measurement of anything. Whether it is *time* or space, we are doomed to always make approximations. But we can still do so with enough confidence to be within a respectable margin of accuracy. Another difficulty that we encounter is that in an infinite universe, everything is moving relative to something else as opposed to being absolutely fixed or static.

In summary, things have to be measured relative to a point of reference, which is never static, and therefore, will always give just an approximation. The concept of “distance” has units of measure that allow us to refer to space, surface, and volume but will always be rounded off to an adequate number for our purposes. The Universe still

⁵⁴ Not necessarily in its current form, because everything in the Universe is in perpetual transformation.

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has 3 dimensions but these exist in an infinite space continuum; it is fractal. We are familiar with “time” as the result of measuring rotation or unit of frequencies, which is not truly time but simply a measurement of cyclical movements inferred to as “time”.

Time travel

Time travel stories are my favorite ones; they are fascinating. Will we ever be able to travel in time? If only it were possible. We probably will not be able to “travel” into the past because, as we have stated, only the present time exists. We are travelling into the future though, even now as we read these lines, because this kind of travel is occurring - but only because what exists continues to exist - leaving a trace in our memory of what once was. We probably will not “travel” faster in the future because the future has not happened, even though it is gradually happening. In reality, only the present exists and it is linked with what shall exist forever.

Is there a way to accelerate the time of the environment relative to those who travel? Almost! It would be possible if a highly technologically advanced team of scientists somewhere in the Universe were to create a 100% automated spaceship that would keep them in an unconscious state,⁵⁵ without aging, and allow them to wake up every 1000 years for one day, for instance. Every 1000 years, they would wake up as if it were business as usual

⁵⁵ Or keep their brain signature and their DNA intact, and resurrect them through a highly advanced cloning technique.

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and observe how much the space environment had changed. Each night would be a 1000 year leap into the future.

However, this does not alter the Universe. It is the travelers who merely lose awareness of their environment for a given time. In reality, they have simply slept through most of the time and when they regain consciousness, the changes around them are readily apparent because the universe aged by 1000 years. In fact, we do this every night – while we are asleep we lose contact with reality – but only for roughly 8 hours at a time. Similarly, people who fall into a long coma experience “time travel” more deeply except that their body has aged with the rest of us as the universe did not go faster while they were unconscious.

A type of travel, in which we would be awake one day out of every 10 million years, would allow us to see our galaxy rotate one complete cycle. This could be done in less than 25 years (when converted into the consciousness/earth time) and only if our body could be preserved for that long. Unfortunately, this process could not be reversed; there would be no coming back.

In the future, after establishing contact with many of our possible extraterrestrial friends, it could be possible that some of them, the eldest ones, might disappear without a trace, thus creating a mystery. We could then infer that they had been destroyed by their Sun’s Yang (next chapter), or had moved away, or had decided to become “time travelers...”⁵⁶

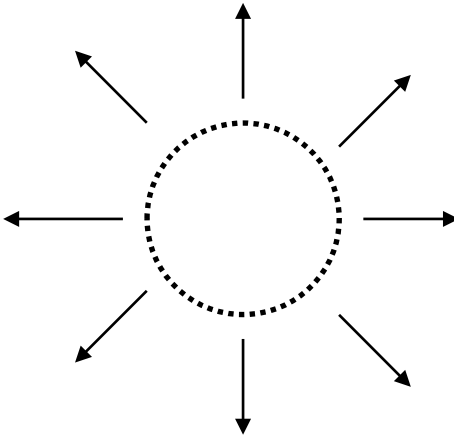
⁵⁶ Besides the idea of being simple “time” tourists, “time” travelling could be part of a long-term stellar experiment in which it would be

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better to “sleep” through the voyage and wake up from time to time so the result would be seen quicker. We think when we attain a certain level of technology allowing us to live eternally (as we undoubtedly will one day), what we understand of time does not have absolute, but relative, importance and living in one era rather than another is not relevant unless what we are interested in is happening at a particular era.

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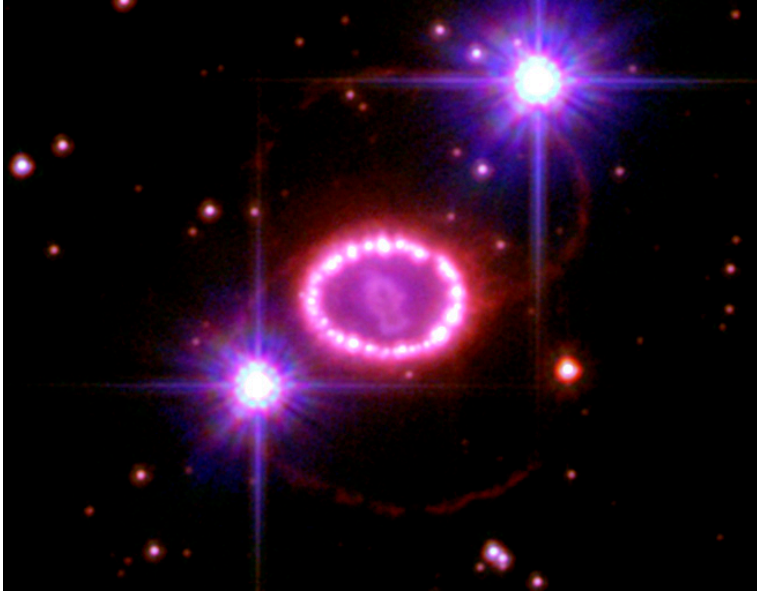
We have shown that the Yin is a concentric movement of SQM toward planetary bodies because pressurized SQM goes to where it can be integrated into more condensed matter. Consequently and as time goes by, the SQM pressure of a given planetary environment will decrease; therefore, the intensity of Yin will also decrease. This happens because SQM is integrated into larger matter (SQM transforming into atoms for instance) inside large



bodies in space, such as stars and planets. The transformation of SQM into atoms lowers the pressure of SQM in this environment. This will, in turn, decrease the speed of the Yin at sea level (gravity at sea level), as well as all other forces linked to Yin. This decrease in pressure will, with time, reach a critical level where the intensity of Yin will not be sufficient to hold the body, usually a star, together. Since Yin holds all matter to its existing level, and is due to a pressurized SQM, a lack of pressure will produce Yang. This would happen mostly to stars as they are most likely to be the most affected by the decrease of

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the Yin intensity. Indeed, they are the largest objects in a solar system.



Once the star (made of integrated matter pushed together by Yin) becomes too big, its size reaches a point where there is not enough SQM around to enter the star with enough speed and a corresponding push to keep it together; Yin is not sufficiently strong to hold the star together. This star then disintegrates through a gigantic explosion; what was once integrated becomes disintegrated, exactly as in gun powder transforms into gas when ignited. Yet, this disintegration will transform into SQM and in turn increase the amount of SQM found locally and will re-establish the SQM pressure found in this environment.

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During the disintegration process, atoms and molecules transform themselves into SQM, which increases the SQM pressure to such a level where disintegration ceases and newly created SQM is pushed into all remaining bodies, therefore returning to the Yin state. A lot of what was once integrated into this environment is now destroyed or rather disintegrated into a smaller form (SQM). This stage of disintegration is what we will now call Yang.⁵⁷

This is what occurs when two sub-critical pieces of uranium 235 are joined; the whole system reaches a critical level where the speed of the Yin flow is not high enough to hold the molecules of the blocks of uranium together. The system disintegrates, and Yang occurs. It follows that disintegration creates SQM that expands and pushes the air out by flowing through it at high speeds. The planets' Yin is disturbed at the locus of the explosion for a few seconds and the planetary Yin comes back; the air is pushed back where there was no air. During an atomic explosion: the air is pushed away from the explosion but then is pushed back in by the planetary Yin that re-balanced itself and returned to the normal Yin state. If the explosion were creating a gas then the air would not be pushed back in; it would, instead, be replaced by the gas itself. The main reason why the air is pushed back is because it was pushed away by something that went through it, pushing it out and then back in: this something, according to our theory, should be SQM, which

⁵⁷ Yang is historically defined as a bright light, active, “upward-seeking”, and masculine and destructive. The historical meaning of Yin Yang is so perfectly in tune with this theory that it seems natural to name the present model after these terms.

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is the answer to what once was not understood or even not realized.

The Yin state lasts longer, and is more passive; it is a state that creates matter by integrating it into a higher level of infinity. This is why the female gender, in its definition, fits so well. Yang, on the other hand, is a relatively shorter, and more active as in a powerful explosion that produces light. It is destructive and this is why its association with the male gender, as understood from its ancient definition, fits so well. The feminine creates and the masculine destroys, still to this day.⁵⁸ It is a poetic correspondence with all the fundamental movements of the Universe, as described in this new theory.

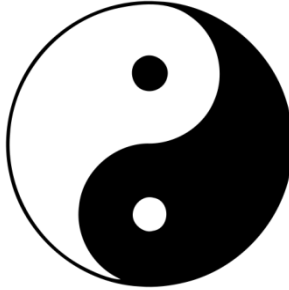
In the part of the Universe that we find ourselves in, we are in a state of Yin, which is fortunate, for otherwise we would not exist. But much further away, we will, from time to time, observe huge stellar explosions, such as supernovae, which represent a state of Yang. Most components found in our Universe are in a state of Yin but there are some components that are in a state of Yang. Destruction is rapid and sudden, while creation is slow; this is why Yin is the most common state of the Universe while Yang is the most uncommon.

In the Yang state, when pressure increases following the explosion that creates SQM, there are components that are beginning to be in the Yin state. The two states are in

⁵⁸ Humans have both female and male behavioral attributes. Some of the male aspects, like violence and destruction, will lose their importance in the future, as violent and unrefined behaviors will be seen as undesirable, and even a threat to our survival.

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continual and perpetual movement. In our atoms, we will also find states of Yin and Yang. The cyclical aspect of the Yin and Yang movements are very well represented in the symbolism associated with it.



It is very strange for the ancient concepts of Yin and Yang to fit so perfectly with this theoretical model of the Universe. This could be a sign that the present model of the Universe was perhaps discovered long ago, and what we have left is represented by the Yin Yang philosophy and its symbolism.



The forces of repulsion in the infinitely large

If two galaxies were to penetrate each other, the SQM pressure would decrease very rapidly at the outskirts of the galaxies where they enter one another because of the relative sudden increase of solar systems (which are particles of galaxies), from both galaxies that are moving into each other. This causes a relatively quick increase in space-matter that will allow more SQM to be pushed into the infinitely small. This will “suddenly” decrease the pressure to a critical level and create localized Yang reactions that, in turn, will re-establish the initial pressure. Consequently, a repulsive reaction between the two galaxies will occur. This also will modify the shape of the two galaxies for some considerable time.

A repulsive “force” in the macrocosm is missing in standard physics. It was the missing part that was needed to better the analogy between the macrocosm and the microcosm. We have now a perfect analogy between the two worlds with the coming of the Yin Yang Universe model.

The same will occur at the atomic and at every level. This is what is happening when we push against a wall; we cannot penetrate the body of the wall without generating Yang reactions in the area where the two bodies are in contact with each other. This is why I can push the wall and cannot penetrate its internal molecular structure.

Since explosions are centrifugal, the inverse square law also applies to them wherever it is in the infinitely large or the infinitely small. Everything is governed by the inverse

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square law⁵⁹ because the Universe is not empty and Yin and Yang have opposite movements (centripetal and centrifugal) of concrete matter (SQM). The centripetal and centrifugal movements of the Yin and Yang respectively are directly related to the inverse square law through the sphere of geometry as shown in the appendix at the end of this book. This principle applies to all levels of infinity. Therefore, the forces of the infinitely small can also be understood through the Yin and Yang principles. One fact supporting this claim is that Coulomb's law, which describes the interaction of electrically charged particles, is also under the influence of the inverse square law.

There exists an infinite number of levels of SQM and we may be seeing the result of more than one level in interaction. SQM existing inside the atom may also be involved in electricity and magnetism. It is also possible that an even lower level may come into play. This means that with an infinite number of levels we have a lot to play with!

Electricity

When we think of electricity we think of electrons and charges. But what are negative and positive charges? A “+” or a “-” is certainly not a physical representation of reality. They are analogies of the real world and we will attempt to find what they represent in the real world.

The understanding of this phenomenon is still incomplete in this present book but the axioms of the Yin Yang

⁵⁹ Or something close enough to this law that would require a little modification to include the Yin effect. Coulomb's law refers to electricity and is also based on the inverse square law.

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Universe can help show the way. They imply that a given level of SQM plays a role in this phenomenon. Perhaps the next level down has to do with electricity.⁶⁰ Let us call it SQM₂. It would create Yin somewhere at a sub-atomic level.

The variation of the pressure of SQM₂ from one area to another may create its movement from the higher pressure to the lower pressure environment (from the “+” charge to the “-” charge). On its way down with SQM, the SQM₂ would accumulate around denser material and would have to balance itself out with its environment. Lightning could be the result of SQM₂ accumulating in the clouds faster than on the ground (in the case of cloud-to-ground lightning). Since air is not dense enough to be used as a conductor (medium) to quickly equalize the SQM₂ pressure difference between the clouds and the ground, SQM₂ will leap if it is high enough in quantity and pressure to push all the way to the ground, especially if the environment has a high degree of humidity. The mechanism required “to sense” if SQM₂ can leap must be fulfilled by lower levels of SQM₂. The denser the matter, the more easily the flow of SQM₂ will be carried from the highest to the lowest-pressure environment, which is why humidity may help as it increases the air density.

However, there is a good indication that the configuration of matter that carries the SQM₂ current will also affect its flow. Conductivity requires matter to be dense enough, but not so dense that it will “eat” up SQM₂ as it flows through

⁶⁰ The Yin is the result of an SQM pressure and this pressure exists at all levels of the fractal universe. The top level cause gravitation, the next levels down will create other phenomena.

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it. The proper amount of density is important, because everything needs Yin to exist and Yin needs the pressure of SQM/SQM_n at all levels. Conductivity could be a function of the density of the conduit, the pressure level of SQM₂ and the synchronization of the atoms' and molecules' orientation in the conduit.

There is an interesting relationship between an incandescent light bulb, lightning, and the Sun. All may be subjected to high pressure from SQM, thus producing a strong enough vibration to become visible as light. Moreover, all three radiate at extremely high temperatures. The speed of Yin on the Sun is faster than its speed on other planets. The push is therefore stronger. As a result, the Sun's atoms, being pushed against each other with greater force, must produce more Yang reactions within because they are forced to come closer together. This should somehow create vibrations of SQM and allow their spectrum to become visible to our eyes. The same reaction must occur in the filament of a light bulb, which is small enough to create the same necessary conditions, as those on the Sun to generate light (relative high enough pressure of SQM₂ going through the filament causing the Yang movements to occur).⁶¹

The well-known axiom, "like-charged objects repel and opposite-charged objects attract" can be explained by SQM₂ differential pressure.⁶² Like-charged objects may

⁶¹ But while high pressure of SQM produces light, the reverse seems not to be true. Other causes could produce light unless relatively high pressure is localized in gas and is apparently not as hot.

⁶² Charged objects repel and are pushed together ("attract") according to the inverse square law as these movements are the results of

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mean that the two objects have an internal SQM₂ pressure higher than the one found in their surroundings, hence, the flow of SQM₂ tries to escape them both and, consequently will act as a push on both of them if they are close enough. Opposite-charged objects would mean that both objects' internal pressure is lower than the level of pressure found in their surroundings, which creates a flow of SQM₂ surrounding both objects and pushes them toward one another, thus giving the illusion that they are "attracted" to each other.

Magnetism

A flow of electricity will create a magnetic field, the lines of which represent the flow of SQM₂, which will not attract, but drag, the material subject to its field/flow. All magnetic fields should actually be viewed as the SQM₂ flow. It is possible for natural magnets to exist because of the orientation of the atoms that constitute them. This particular orientation would cause SQM₂ to flow from the positive to the negative pole, to use the current terminology. In fact, the flow of SQM₂ comes out of the positive pole (+) and enters the opposite negative (-) pole.

If two bar magnets are placed together on the same poles (++, --), they will push each other away but the explanation varies depending on which poles are placed together. It is easy to understand why the two positive sides will push each other away since the flow comes out of the positive sides. The two negative sides will also push each other away because the flow entering each side is colliding when

centripetal and centrifugal movements of SQM, no matter the level of SQM involved.

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entering in each side. Placing two different poles (+ and -) together transforms the two magnets into one magnetic system. The flow will come out from one pole and travel along the two bars to the other end where it will enter, thus pushing the two bars toward one another. There is no such thing as physical attraction, except between two people, and this exists only on a psychological level.

The effect of weight gain on the acceleration of particles

When a particle is accelerated artificially through a particle accelerator, the accelerator uses tremendous amounts of magnetic energy, which are in fact SQM₂ movements. This, in turn, increases the particles' Yin, which then generates matter within these particles⁶³ in a shorter time. As a result, an increase in the weight of these particles will take place because SQM₂, and its smaller dimensional layers, will integrate with a much greater force within these particles. This model explains the particles' weight gain and has nothing to do with a consequence of the erroneous law stating that nothing can travel faster than the speed of light.

Chemistry

In chemistry, we also speak of attractive and repulsive forces. The equivalence between the macrocosm and microcosm is now established since we have demonstrated the existence of the repulsive forces of the macrocosm

⁶³ Yin has the effect of creating matter, and lava could be a result of this effect at the planetary level, as shown in Chapter III. But this will also have the same effect in all particles of the infinite universe, from the small to the big.

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which exist in the Yin Yang Universe. This, which has not been explained until now, is the Yang effect: two galaxies will repel each other because the sudden lowering of SQM pressure in the vicinity of the area where they are entering one another (the point of inter-galactic penetration) will cause many suns to explode (Yang effect). Looking at a cluster of galaxies would perhaps give us a slow motion view of the equivalent of an atom composing the above gigantic world...

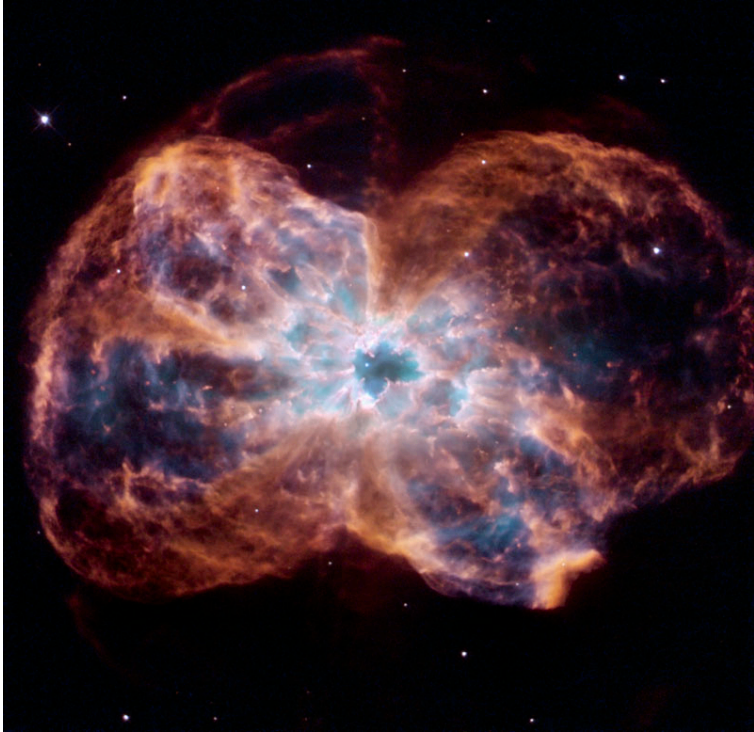
Electricity and chemistry both refer to negative-positive charges, an analogy that has been useful but that cannot be a representation of the physical world. More specifically, the concept of SQM_2 pressure variation should also apply here at the atomic and molecular levels. We will leave this for now as it may be the subject of another book.

It goes without saying that not everything is explained herein, but this new theoretical venue may pave the way for a revolution that may eventually lead to a more complete understanding of the Universe, a goal that this book ultimately seeks to help. The journey is just beginning.

V – LIFE

Yang and the survival of life forms

How much time do we have left before our sun reaches the Yang phase and destroys us?



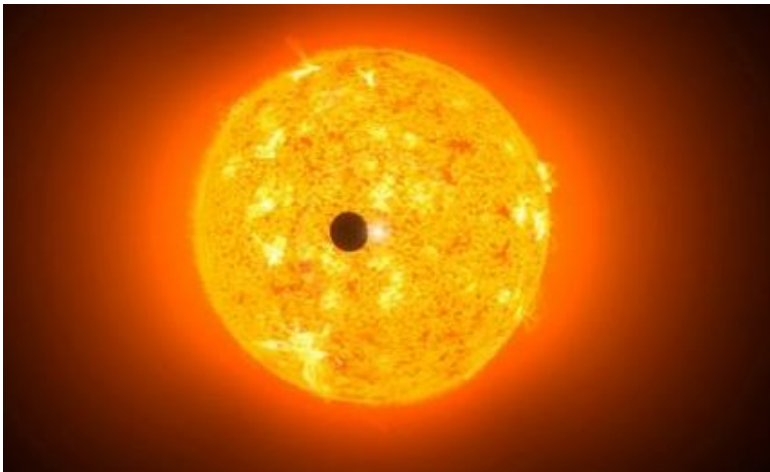
If our sun goes into the Yang state, all life forms will disappear with it, and return as SQM. Within the scope of a galaxy it will be possible for stars, especially our own, to avoid the Yang state.

We can indeed avoid this catastrophic situation by setting up Yang parks void of life in strategic areas of our galaxy in order to artificially activate the Yang wherever it is needed. When SQM pressure is close to its critical level, just prior to the natural activation of Yang, we could

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deliberately trigger the explosion of lifeless solar systems located in these parks and restore SQM pressure to a safe level. This will compel us to refrain from propagating life to all possible solar systems. Consequently, by carefully and deliberately blasting well-chosen stars in specific and predetermined areas of our galaxy, we will avoid the unnecessary destruction of life. To achieve this will require considerable coordination of efforts on the part of the intelligent life forms that exist in each galaxy.

We can observe Yang and its effect in what is known as supernovae, which are enormous stellar explosions that occur somewhere in the known Universe on the average of once every 50 years. It is possible that these events may have resulted from the planned interstellar coordination of existing intelligent life forms that have reached a level of technology that allows them to do so.



Extraterrestrial life

Most scientists agree that we are not alone in the Universe. Whatever the process by which life was originated, it is highly likely that the same course of action took place elsewhere in the Universe because of its infiniteness in space and in time. Even those who believe in the finiteness of the Universe agree on this because this universe is already so vast and “old”. With this in mind, it would be difficult to explain how we could be the only occurrence.

Is there a way to estimate how many civilizations there are in an infinite Universe? Logically, we should find an infinite number of civilizations in an infinite universe, but a more relevant question could be: “what is the density of life?” Another one could be: “how many civilizations do we have in our galaxy?” Many people have heard of the “Drake Equation” formulated by Frank Drake in 1960. However, the problem is that the equation contains 7 unknown variables.

$$N = N_* \cdot \int P \cdot n_c \cdot \int l \cdot \int i \cdot \int c \cdot L$$

The formula estimates the number of advanced technical civilizations in our galaxy capable of radio astronomy (N):⁶⁴

N_* , the number of stars in the Milky Way galaxy;

$\int P$, the fraction of stars that have planetary systems;⁶⁵

⁶⁴ Sagan, *loc. cit.*: p. 299.

⁶⁵ Thanks to the search for exoplanets, astronomers have found more than 1,200 planets in other solar systems (Sep. 2011). They will use the new Kepler telescope to find those that have a size comparable to

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n_e , the number of planets in a given system that are ecologically suitable for life;

$\int l$, the fraction of otherwise suitable planets on which life actually occurs;

$\int i$, the fraction of inhabited planets on which an intelligent form of life evolves;⁶⁶

$\int c$, the fraction of planets inhabited by intelligent beings on which communicative technical civilization develops;

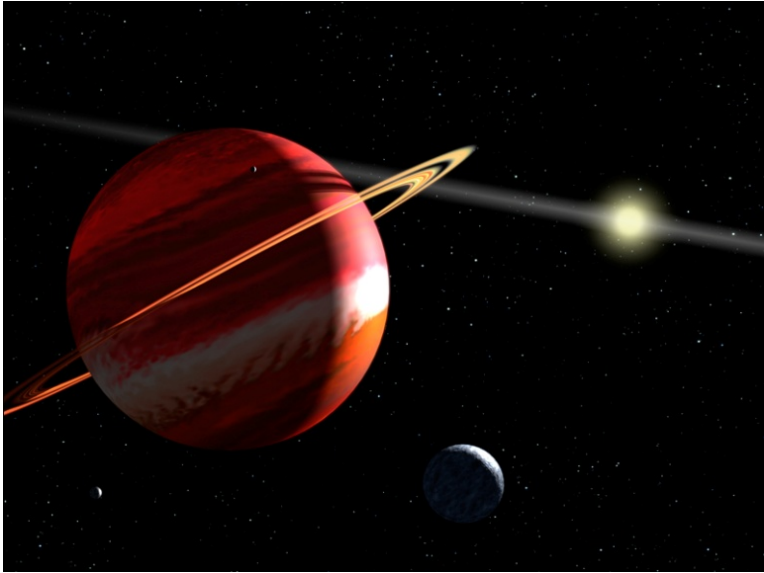
$\int L$, the fraction of a planetary lifetime during which a technical civilization exists.

This is a guessing game based on assumptions related to a model of the Universe and the origin of life. For one, the formula is based on a finite universe, which makes it obsolete. Indeed, a finite universe implies theories that limit space travel, which in turn limit the possibilities of our planet being visited by extraterrestrials. Because we have established that we live in an infinite Universe, this should allow us ultimately to make a better estimate on the average density of life in the Universe.

our Earth. Approximately 140 have been found to be Earth-like as of July 2010 and 5 of these have been discovered through the Kepler telescope. Exoplanets are now viewed as very common objects in the Universe (<http://kepler.nasa.gov/>).

⁶⁶ This term assumes that Darwinian evolution is the only way life can develop on a planet. This assumption greatly decreases the final estimated number.

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Given the infinite nature of the Universe, which allows for unlimited scientific progress, it is fascinating to find out where this will lead in terms of multiplicity of intelligent life forms. Infinite scientific progress would allow space travel at speeds that, theoretically, would increase without any limit. Indeed, as we have indicated earlier in Chapter I, speed has no theoretical limit in an infinite universe! The concept of infinity opens up a completely different view of the Universe from the one with which we are familiar (finite universe). We are entering a new paradigm that is much more open than the current one. The idea that we are probably not alone in the Universe makes sense, particularly in an infinite universe (time and space). We do not need to further elaborate on this point to realize that the presence of intelligent life forms beyond our Earth and our solar system are near certain.

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The existence of a universe that has the property of being infinite in space and time leads to the following two consequences: (1) as stated, the speed of light is not the fastest speed and velocity exists on an infinite continuum of velocities; and (2) technological progress will forever continue. Indeed, we have noticed that our technological progress is ongoing and is accelerating.

“Our forebears expected the future to be pretty much like their present, which had been pretty much like their past. Although exponential trends did exist a thousand years ago, they were at that very early stage where an exponential trend is so flat that it looks like no trend at all. So their lack of expectations was largely fulfilled. Today, in accordance with the common wisdom, everyone expects continuous technological progress and the social repercussions that follow. But the future will be far more surprising than most observers realize: few have truly internalized the implications of the fact that the rate of change itself is accelerating.”⁶⁷

At some point in the future the acceleration of progress will change drastically and will be incredibly steep. Science philosophers call it the *singularity*.⁶⁸ In an infinite universe, the trend of progress does not and should not have any limit since there is an infinite range of particles with their unique vibrations and an infinite pattern of interaction between these particles, and this is gradually for us to discover. There will be no end to that growth in knowledge.

⁶⁷ Kurzweil, Ray, *The Law of Accelerating Return*, Published on KurzweilAI.net, 2001

⁶⁸ Kurzweil, Ray, *The Singularity is Near*, Penguin Group, 2005

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These two points lead to an infinite continuum of speeds in terms of space travels. The infinite universe opens up a completely different perspective relative to our capacity to reach the stars with our future space ships. Our galaxy becomes within our reach, contrary to the current view where this would seem to be impossible given the estimate that our galaxy is 100,000 light years in diameter. Since our progress will be infinite and constantly accelerating, we can forecast that our civilization will eventually reach a point where it will be quite easy to one day travel through space relatively quickly to reach other planets in other solar systems besides our own. This, in turn, will enable us to create and propagate life on other planets much faster. If we simply take a look back at our own history and our track record of colonizing continents, we can conclude that it is part of our nature to propagate and “spread our seed”, whether or not it is intended. It seems to be an inherent part of our biological makeup and represents the most likely scenario as our scientists already have plans to establish life on Mars. We are just in the beginning stages of space exploration.

“We have a moral obligation to plan for the propagation of life, and even the transfer of human life to other solar systems... Securing that future for life can give our human existence a cosmic purpose.”⁶⁹

When our scientists master the ability to create life artificially, they will also be able to create life forms with the unique ability to adapt to the environment of planets

⁶⁹ Interview with Michael Mautner on PhysOrg.com about an article that was published in *Journal of Cosmology* (March 2010), www.physorg.com/news184915200.htm .

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completely different from our own. There is a high likelihood that this mastery will occur and would probably be the most practical method of propagating life on other planets. This will also allow for a more flexible and efficient process of propagation and will mean that the speed with which life proliferates would greatly benefit from knowledge of genetic engineering.

“Consider just some of the progress associated with the J. Craig Venter Institute. In 2003 its researchers created a synthetic version of the bacteriophage phiX174. In 2007 they successfully transformed one species of bacteria to another by genome transplantation. Most recently, they developed methods for the complete synthetic assembly of the genome of the bacterium *Mycoplasma genitalium*. The techniques now developed make the feat of sequencing the human genome in 2001 seem prehistoric. Not only have the cost and speed of sequencing evolved faster than those of computer chips, but the ability to use both chemistry and biology to synthesize new complex organism has undergone a revolution in the past five years.”⁷⁰

The Craig Venter Institute reported in May 2010 of the creation of the first bacteria cell controlled by a chemically synthesized genome.⁷¹ This made big news in popular media and questioned the origin of life in a powerful way.

⁷⁰ Krauss, Lawrence M., Life from a Test Tube? The Real Promise of Synthetic Biology, *Scientific American*, February 2010: www.scientificamerican.com/article.cfm?id=the-real-promise-of-synthetic-biology

⁷¹ Venter, Craig and al, Creation of a Bacterial cell Controlled by a Chemically Synthesized Genome, *Science* DOI: 10.1126/Science.1190719, May 20, 2010, (<http://www.sciencemag.org/cgi/content/abstract/science.1190719>)

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Atheists of the Dawkins type will take it as practical proof that there is no need to hypothesise God at all: we can make life without any miracles, and there's no need to imagine a creator.⁷²

The use of the term “creator” in this excerpt refers to a supernatural god, but the ability to synthesize a functional DNA strand also makes us creators, albeit scientific ones.

When we start propagating life in the Universe, we will also make progress with respect to the process of creating life. After the scientific creation of a few artificial life forms on other planets, the process could be automated. Overall, this process would take the shape of an exponential curve, similar to the propagation of life on our own planet.

⁷² Browns, Andrew, *Has Venter Made us God?*, www.guardian.co.uk, May 20, 2010, <http://www.guardian.co.uk/commentisfree/andrewbrown/2010/may/20/craig-venter-life-god>

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This suggests that out of one civilization, we would obtain at least two civilizations in a few tens of thousands of years (something between 20 and 30 thousand years).⁷³ We could then expect a further expansion in the order of 4 in a subsequently shorter period, then 8, then 16, then 32, etc. Assuming the length of time for each step in the process of propagation is the same, (a conservative notion since we should expect automation to speed up the process) in roughly one million years that process would have created enough civilizations to populate an entire galaxy the size of our own by simply placing one civilization within each solar system! In about two million years, the “known” Universe would be full of life. This means that every solar system in every galaxy of the “known” Universe would contain a civilization. This is how powerful this process is. It should be noted that the automation process would balance out the loss of civilizations that would destroy themselves through nuclear wars were they not able to control their own violence and aggression. Additionally, the planets of self-destroyed civilizations would be recycled to put life back on them.

All of these created forms of life would have originated from the deliberate and scientific creation of their creators and none of them would have originated from “natural” chemical and biological evolutionary processes. In fact, in such a context, these “natural” evolutionary processes

⁷³ Using our own planet’s estimated population growth, we can infer that, using an inferential statistical model, it would take between 20,000 and 25,000 years to obtain a civilization of 7 billion people on a new planet, starting with only 7 couples. Therefore, since a planet’s population correlates with the level of scientific progress, one can predict the other.

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would not have much chance to occur on planets. Indeed, the intelligent propagating process would take over by creating life on them. An intelligent propagation process would take one million years to totally populate our own Milky Way while it is estimated that it would take 3.5 billion years for life to evolve on just one planet and not necessarily in our own galaxy.

All of this suggests that if we travel into space and meet extraterrestrials, the chances of them having originated from some sort of seeding or a scientific creation is statistically almost a certainty. This refers to a probability that could roughly be estimated at around 99.9999999999999999...%.⁷⁴

Most importantly, and as a boomerang effect, this prediction also suggests that our own civilization's origin could be part of an infinite continuum of creation of life from planet to planet, i.e., part of an extraterrestrial civilization's life propagation project. In other words, the conclusion of our prediction contains the explanation of our own origins.

In brief, if we can predict that we will create life on other planets, it suggests we may already be part of an ongoing

⁷⁴ If one compares the number of humanities created scientifically with the one that would be generated from random chemical and biological evolutionary processes, as proposed by neo-Darwinism, over a 3.5 billion year period, the ratio of the two numbers would give an idea of the probability scale to which the former is most likely to occur compared to the latter. The probability of finding another civilization originating from a scientific creation process would be in the order of 99.99... percent with tens of thousands of 9s after the decimal. Would this not be equivalent to a certainty?

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propagation process. Furthermore, unless we are the first civilization to appear in this part of the Universe, (that is, if we believe that life forms can originate from purely random chemical and biological processes, AND that we are the first one to appear that way in the universe), it is extremely likely that our origin is linked to a propagating process that involves a higher intelligence. Since our civilization has not been advanced enough in the past to understand this basic principle, scientists have developed other theories to explain our origins, theories that are actually part of our socially accepted paradigms.

But if our origin is linked to a type of organized and “controlled panspermia” by beings from elsewhere, then “where are they?” This famous question was asked by Italian physicist and Nobel Laureate, Enrico Fermi.⁷⁵ He held the same reasoning, which was brilliant considering that he raised this very question at the beginning of the 1940s. At that time, the UFO phenomenon was relatively unknown. However, a few years later in 1948 this phenomenon had become common knowledge, especially when the first modern UFO sightings were publicized and provided a glimpse into the answer to Fermi’s famous question.

The disinformation promoted by the various governmental agencies influences scientists even today into rejecting the reality of this phenomenon. This action has succeeded because the accepted paradigm in physics considers extraterrestrial visitations highly improbable. This paradigm is so powerful and so deeply entrenched that

⁷⁵ Crick, Francis, *Life Itself – Its Origin and Nature*, Simon & Schuster, New York, New York, p. 13.

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most scientists would not even consider investigating the phenomenon.⁷⁶ This also explains why Fermi's proposition is commonly known as Fermi's paradox. Based on the math of life propagation, scientists understand that we should most likely have been visited by extraterrestrials but the accepted paradigm forces them to think otherwise. Therein resides the paradox. Instead, the scientific community awaits extraordinary evidence because the paradigm they believe in requires it.

This partly explains that, while we and our societies should expect UFO visitations according to Fermi's proposition, we are very quick to dismiss all UFO reports and, at best, when it really matters, classify them as "unexplained phenomena". The fact that these reports are unexplained serves the purpose of avoiding to conclude in a positive light all matters related to the UFO phenomenon. It serves to show that no evidence that can potentially justify a change of paradigm will be accepted. Another way that has been used to stop the existing investigations about UFOs is to conclude that they represent no threat to the public. Indeed, "no threat" does not mean interplanetary UFOs do not exist... but it does answer the question that started the investigations. (Are UFOs a threat to national security?) Partial answers work wonderfully in politics.

⁷⁶ In fact, the scientific community, as a whole, has become paralyzed at a stage of complete denial just as the paradigm with regards to extraterrestrial visitations has begun to change in the minds of the population because of the increase in strong UFO related testimonies and associated evidence.

People believe what they want to believe no matter what takes place around them⁷⁷ and are blind to anything that threatens or goes against their belief system, even if it occurs in plain view. In addition, a strong factor in the lack of reactions from the scientists is the fear of losing their reputation or being excluded or ostracized by their peers, which often results in job lost or absence of funding.

We are not going to investigate the UFO phenomenon for you. The information is out there and it is our duty to find it. If one opens his mind to it and takes the time to research the subject of UFOs, he will undoubtedly find that some very strong evidence exists.⁷⁸ But there is a lot of effort out there to discredit the information and it is up to each of us to discriminate between what is true and what is false.

There also seems to be traces left here and there in our distant past such as ancient descriptions of beings descending from the sky telling us that they created men “in their image.” It looks as if we invented the gods when we saw *them* coming from the sky as described in ancient writings.

⁷⁷ This book will undoubtedly be largely dismissed as it represents a complete paradigm shift when compared to the current paradigm.

⁷⁸ In 1990, General De Brouwer of the Belgian Air Force held a press conference to show the efforts of the military to intercept UFOs. Radar recordings were shown. For the official De Brouwer’s statement, see: http://www.freedomofinfo.org/national_press_07/general_de_brouwer_statement.pdf. This not only shows that the evidence exists but also indicates one of the most common reactions of a society facing the perception of the “impossible”, i.e. nothing is done. This episode is a rare exception, and a cover-up is usually what occurs, especially in the USA where only a small group of “powerful” people wants to have total control over this situation.

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The natural tendency of primitive humans is to be anthropomorphic. This produces animism where the psychological reflex leads us to believe that objects, whether plants, rivers, thunder, or volcanoes, have a human mind. Children act in exactly the same way, thus demonstrating how natural this human tendency is. The point here is that this is quite different from deistic religions.

Believing in beings that came from the sky and created all life on Earth is so unnatural⁷⁹ that it suggests an entirely different process. By this we mean that it appears as though deistic religions may have originated from contacts that our ancestors had with extraterrestrials and they were so impressed that they recorded these otherwise incredible events by way of their own related rituals.

Historical records provide evidence of this sort of phenomenon. When Americans landed on the island of Tanna during World War II and met the Tannese people, this population had had up until that point, no real contact with a technological civilization. The Tannese were so impressed by the Americans' technology (Jeeps, helicopters, guns, machines, etc.,) that they perceived them as "Divine," adhering to the notable third law of Sir Arthur C. Clarke:

⁷⁹ Sociologists were forced to assume that the origination of deistic religions could have come only from the imagination of man as if there were no other possible scientific explanation.

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"Any sufficiently advanced technology is indistinguishable from magic."⁸⁰

From being animistic, they became deistic, as they perceived one of the Americans to be their god, and thus began the John Frum Cargo Cult. What happened in Tanna Island could have happened thousands of years ago when our ancestors were contacted by those who propagated life on Earth and purposely left messages of their creation (ancient texts and scriptures) for us to understand when our mind would acquire enough knowledge to do so.

It is fascinating that the process of propagation of intelligent life that is suggested here is actually supported by deistic religions, which describe messages from beings who came from the sky through descriptions that precisely fit this proposition. The process of propagation of intelligent life suggests that we should expect deistic religions to develop as our ancestors encountered their creators and receive their message; this is exactly what we find.

Another Nobel Prize winner, Francis Crick, used a comparable life-propagation argument and inferred that primitive forms of life were seeded on the Earth by automatic spaceships of extraterrestrials.⁸¹ This process of propagation is so powerful compared to the current theoretical process of the genesis of life⁸² that it becomes

⁸⁰ Clarke, A.C., *Hazards of Prophecy: The Failure of Imagination in the collection Profiles of the Future: An Enquiry into the Limits of the Possible* (1962, rev. 1973), pp. 36.

⁸¹ Crick, loc. cit., p. 15.

⁸² Theories of chemical evolution.

the most probable. We should expect extraterrestrial visitations to occur not only in the present but also to have occurred since the beginning of our civilization and even earlier. We mean by this that intelligent life forms would explore every potentially suitable planet on which to propagate life and this process of propagation would, therefore, impose itself as the major, if not the only, process of propagation of life.

The immense power of spreading life throughout the universe by way of a scientific creation of life suggests that we most likely originated through the intervention of extraterrestrials. This assertion is supported by the UFO phenomenon and would translate to our creators (or extraterrestrial neighbors) being able to observe our progress, as well as religions describing encounters with beings who came from the sky with a message of life's creation.

Intelligent Design

I think we should open our minds to the idea of creation, not from a religious point of view, but from a scientific perspective. We have shown that the existence of a God creator of the universe would lead to a paradox and evidence of a design for life would better rationally support an extraterrestrial intervention on Earth in the distant past. It would make sense to view the existence of deistic religions as evidence of a controlled panspermia, especially if the message from the alleged *divine* beings were related to the creation of life on Earth.

The current scientific paradigm holds that life appeared through chemical evolution from inorganic matter. There is, however, a problem with this idea and it motivated

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Francis Crick in his book *Life Itself*, in which he supported the idea of an intervention by extraterrestrials rather than a chemical evolution as the origins of life. This is perfectly in line with what we are proposing here; a controlled panspermia process, which is more likely to have occurred. This deserves serious consideration. Not only is controlled propagation of life highly probable, but also its alternative theoretical competitor, chemical evolution, is highly improbable.

The question we should ask about the chemical evolution hypothesis regarding the origins of life on Earth is how random events could have created the information needed to sustain a living organism and a reproduction system (information that is then interpreted by a would-be primitive cell to function in all its aspects)? To claim that chemical natural selection played a role is completely irrelevant because of the coding. DNA or any other form of molecular coding has to appear before any mechanism of natural selection can play a role. Furthermore, such an entire system has to be randomly assembled in an instant to stand a chance of continued existence, otherwise an incomplete system will not survive. This scenario is so highly improbable that the belief in random assembly becomes a kind of a myth.

The old Miller-Urey experiment and others that followed are trying to provide evidence that life can emerge from inorganic matter, a sort of chemical evolution on the young Earth. However, the important point here is that the amino acid molecules that were randomly created in the experiments do not represent a system that can carry information. We find all kinds of molecules in living organisms but not all of them carry information and this

represents the core of the debate. Without carrying information, the first assembly of “life-molecules” is utterly useless and cannot lead to life. Life forms are nano-machines that are self-replicating, self-repairing, and self-anything. These processes need independent information systems while remaining in connection with the reality of the surrounding of life forms that contains them. This is the essential problem for believers in random-accident miracles. Evolutionists still believe in the possibility of random accidents to create life in a gradual way but scientific experiments have failed to support this view.⁸³

Mathematicians have looked into the problem many years ago⁸⁴ and to this day, have not come up with any strong arguments showing that random⁸⁵ processes can create information. The myth of evolutionists is that with an infinite number of trials and errors, you find a “solution” to any complexity. The Universe has laws and all the parts and constituents have to obey them. These laws explain the

⁸³ Vera Vasasa, Eörs Szathmáry and Mauro Santosa. “Lack of evolvability in self-sustaining autocatalytic networks: A constraint on the metabolism-first path to the origin of life.” *PNAS*, January 4, 2010 DOI: 10.1073/pnas.0912628107.

⁸⁴ Moorhead, P.S. and Kaplan, M.M., eds (1967) *Mathematical Challenges to the Darwinian Interpretation of Evolution*, Winstar Institute Symposium Monograph, Cited in Denton, Michael, *Evolution: A Theory in Crisis*, p. 314.

⁸⁵ In reality, we refer to pseudo randomness. Pure randomness makes no sense whatsoever because there are always reactions from preceding reactions extending in an infinite time continuum. The appearance of randomness is due to the ignorance of the causes. But what statisticians mean by randomness is a lack of correlation between events, which, in turn, implies uncorrelated causes.

natural influences upon atoms and molecules and they do not have a choice but to be assembled according to specific laws of chemistry and physics. A more simplistic way to look at this is to say that atoms and molecules follow the easiest path directed by the laws of nature. This means that the laws of the universe limit the space of all possible events and it is not clear that random simulations have accounted for this limitation.

Why should we believe that “the easiest path” of the chemical laws correlates with the creation of information? A correlation needs an explanation or else it hides an unknown principle and is not science anymore: it is magic. Even without taking this factor into account, realistic computer generated simulations⁸⁶ using randomness as an algorithm have failed to demonstrate any creation of information. Let us repeat that gradual chemical evolution would not work until a completely well-functioning system is achieved, otherwise the organism itself cannot survive. If gradual chemical evolution were possible, it would need to have everything built-in to survive and reproduce itself. Otherwise, it is totally futile. This further decreases the probability of a chemical evolution.

⁸⁶ The minute quantity of information that a given simulation could generate is always guided by an intelligent algorithm (when trying to simulate changes and hoping to find information in the result). This goes in contradiction with the primary engine of any evolution theory, which is pure randomness. Secondly, a complete information system is needed to keep track of the changes (when trying to simulate natural selection), which is not possible if the approach is to simulate the genesis of an information system. It is a catch 22, the very paradox of evolutionists.

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Simply put, poems need poets while a random distribution of letters on a piece of paper would be merely a collection of symbols without any information and meaning. No random event can create a coding language on the level that is needed to create life.⁸⁷ To believe otherwise is faith, i.e., it is not supported by evidence. It looks like the god of the evolutionists is “pure chance.” It is a type of mysticism that the evolutionists themselves are not even aware.

The alternative theory for the origins of life should be scientific. It should be part of what exists under the known laws of the Universe. If life, because of its informational structure, cannot originate from inorganic matter ruled by the laws of the Universe then it must originate from an artificial domain. Life must be artificial by the very nature of its structure, which is not due to natural causes! Life is essentially based on information carried by DNA coding and this cannot have self-generated. Because we know for certain that only a higher intelligence can create information, it follows that the information contained in life was also created by intelligent beings. If it were not us, it would *the others*.⁸⁸

⁸⁷ Dean H. Kenyon, co-wrote *Biochemical Predestination* (1969), a book that was a reference of how life could have originated from natural chemical evolution. He discovered in the years that followed the publication of his book that his own theory was flawed and based on wrong assumptions. As new facts were discovered, he realized that life could not have originated from natural chemical evolution. He has since then joined the Intelligent Design movement.

⁸⁸ *The others*: curiously (or not), it is a translation of the Hebrew word *Elohim* found in the Bible and identifying the *beings who have come from the sky*, yet an alternative translation.

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The problem is not that the basis of the deistic argument rests on the body of evidence that relates to the theory of Intelligent Design (ID) or creationism as the deist's favorite weapon to bring the ID discussion into schools; rather, it is the deists hope that the concept of God will be revitalized. They fail to realize that the only source of design admissible in science must rest on a rational cause, not a non-defined concept such as God. Hence, the only option left is for this design to have come from intelligent biological entities, most likely from an extraterrestrial civilization.

What a turnabout for religious activists! They do not realize that they are bringing about the beginning of the end of their movement. Nevertheless, they serve a purpose for the moment as they have uncovered scientific and rational evidence of a design in living things. This can be used to support the idea of an extraterrestrial intervention in the creation of life, thus reinforcing the idea that the supernatural does not exist and removing the only scientific support that deists thought they had. **This is why the Theory of Intelligent Design (ID) is the most powerful weapon that atheists have in the fight for the removal of mysticism in the understanding of the genesis of life.**

The renown atheist and evolutionist Richard Dawkins was interviewed by Ben Stein for his movie *Expelled: No Intelligence Allowed*, and was asked a question about the possible eventuality that the Intelligent Design theory rather than evolution may turn out to answer some issues in genetics. The following excerpt contains his verbatim answer.

“...it could be that at some earlier time, somewhere in the universe, a civilization evolved by some kind of

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Darwinian means to a very high level of technology and designed a form a life that they seeded onto, perhaps, this planet. That is a possibility, an intriguing possibility, and I suppose that you might find evidence for that if you look at the [t-cell], biochemistry, microbiology, you might find a signature of some sort of designer... and that designer could well be a higher intelligence from elsewhere in the universe. That higher intelligence would itself have had to have come about by some explicable... or ultimately explicable process. It couldn't have just jumped into existence spontaneously; that's the point."

What Dawkins wanted to show is that even if the facts were to show that life was intelligently designed, which is contrary to his position, the source of this design would certainly not be a god. As Dawkins did, scientists in all fields should come to the realization that the Intelligent Design theory or other arguments proposed by creationists are not real threats to science. Intelligent Design theory will never impose the idea of a god. It will rather suggest the idea of an extraterrestrial intervention by biological entities, an idea that is void of mysticism. This argument should be used widely in order to show the irrationality of the equation: Intelligent Design = God!

On the other hand, scientists have ridiculed all ideas of creation because they believed that this perspective carried the concept of God. In doing so, they have "thrown the baby out with the bath water." Scientists have been biased in selecting only the interpretations that did not suggest a design. By rejecting the idea of a creation altogether, they also developed a blind spot regarding the idea of a creation by extraterrestrials. But, it just happens that it is the very idea that can really help us understand our origins and

destroy the link that deists make between the scientific argument of a design and the concept of God creator of life.

Not all the arguments of creationism and Intelligent Design theory are wrong. Some are quite interesting and could be used to support an alternative scientific theory involving a design carried out by extraterrestrials. Simply considering the possibility that scientists from another planet may have come to Earth to perform scientific experiments using genetic engineering will help eliminate the idea of an Almighty God in a more efficient way.

Interestingly, people generally say that there is no proof that extraterrestrials have left traces on Earth when there is plenty of visible evidence.⁸⁹ One type of evidence stares us in the face and that is life itself. Life is actually an artifact left by extraterrestrials but so many cannot see it. Life is a technology! It is a nanotechnology that surpasses our own technology. We are so indoctrinated to view life as natural that its artificial character goes right over our heads, especially the heads of evolutionists.

My revolution in researching the origin of life

I remember when I first learned about the idea of extraterrestrials creating life on Earth. I was rather surprised for not thinking sooner about it as a possibility. I was an evolutionist at the time and I had already investigated the UFO phenomenon and concluded it was real. I embraced the theory of Ancient Astronauts who

⁸⁹ The evidence is automatically dismissed or ignored by the scientific community because it is not part of the current paradigm. They always find a natural way to explain it even when it is very unlikely or they simply ignore it altogether.

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landed on Earth a long time ago and changed or intervened in the process of our natural biological evolution. However, this new idea of a complete creation needed to be investigated to see if it could make sense. The psychological trick I used was to play devil's advocate against my own view as if I were playing chess with myself and changing sides after each move. Being an evolutionist, I gave myself a challenge: to find evidence for a scientific creation that I would not be able to explain using the evolution paradigm, which was my belief. I forced myself to think as an atheist creationist to help myself in finding clues against my own belief. Doing this changed something in me. I became more objective and I perceived facts and arguments that I had previously ignored.

I started to pay more attention to shapes and colors, noticing, for instance, the distribution of colors on the scales of tropical fishes or on the feathers of tropical birds. The colors did not at all appear as though they were randomly distributed. It looked rather like a work of art.

A line of color that crosses the many feathers of a bird needs a very precise and calculated DNA programming. Each part of the line is drawn at a different location on each feather. The understanding of what it takes in the DNA to accomplish this excludes any interpretation leading to randomness. I could not explain this phenomenon through random mutations and natural selection, which are the twin engines of evolution. No evolutionist can. Without providing any explanations, they simply believe that the evolutionary process did it somehow. Sometimes, they give a pseudo-explanation to deal with it. For instance, they would say a male with more precise colored lines would be more likely to be selected by a female and better reproduce,

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while most other males would not be selected. This is an illusion. It does not explain how the line was originally assembled. Besides, a creator could program the DNA to obtain this natural selection mechanism, encouraging his created specie to minimize the deterioration of the DNA code through accidental mutations. The main problem with the evolutionistic rationale for all the changes that would have occurred, is that it does not explain how DNA was programmed in the first place. Natural selection could simply be seen as a mechanism of protection of the DNA code.



One day, I found a dead monarch butterfly, intact, by the side of the road. When I looked at the fine black lines drawn on the wings to highlight the precision in the arrangement of the small scales which provides the colors of the wings, I was astonished to see that the black lines were mostly distributed on top of the fine rigid structure

of the wings.⁹⁰ Structurally, this frame consists of tiny tubes called veins on which the tissue of the wings is attached so that the wings remain straight when flapping. This is a required condition for flying.

The presence of these black lines surprised me because they showed an even more improbable event than the obvious non-random distribution of colors found on butterfly wings. I thought of the complexity of the DNA programming it must have required arranging these tiny colored scales in such a fashion as if to precisely hide the veins of the wings. This occurred to me to be what a designer artist would do. I could not imagine or find in the literature any other root cause except a designer's conception to explain such a highly improbable correlation.

I calculated that the probability of such an event to occur would be in the range of 1 chance in a number containing 1 million zeros ($1/10^{1,000,000}$).⁹¹ That simply puts a number to what we can already intuitively feel. This number is so big that no normal book can contain it (near 500,000 pages of a book this size). It means that such a correlation cannot have randomly happened. Even to code a simple line, no matter where it is on the wings, is an improbable event because a line is a correlation between the scale locations and it needs very specific and calculated DNA programming. Not only can we see lines on the wings of the butterfly but many are on top of the veins and these should be two completely

⁹⁰ I could not notice this before because I was wearing the glasses of an evolutionist. I was therefore biased.

⁹¹ I invite the statisticians to do the same and no matter the method you will use, the difference in results will not change the conclusion.

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unrelated structures (veins and scales)! I was stunned! Life is showing us a design but because we have been educated to think as evolutionists, we ignore the depth of the role that this design plays in living entities. This evolutionary paradigm also prevents us from realizing the high degree of improbability that the information contained in living entities could have been randomly generated.

I realized at that point that the idea of evolution in which I had believed concealed a central mysticism: it hid the belief in the magical powers of randomness. Little by little, I realized that the genesis of life was better explained by a scientific creation, whereby the designers are as human as we are. This explanation also satisfied my view, of which needs no mysticism whatsoever.



Rendering (painting) of a photo showing a “smiling” caterpillar found on the wingtip of a butterfly.⁹²

Sandved⁹³ is a photographer who took pictures of bizarre designs on butterfly wings. Like his fellow evolutionist colleagues, he advanced the argument that everything we

⁹² The original photo was found at <http://www.butterflyalphabet.com>. For some reason, it has been removed from the Website after I asked him if I could use it. This is a very cute artifact. It is obviously a veiled message from those who designed it... Many other photos of designs found on butterfly wings can be found on the Website <http://www.butterflyalphabet.com>. You can view them more conveniently (grouped together) on this website: www.theyinyanguiniverse.com. We would be pleased to receive photos of butterflies or other animals you took yourself showing evidence of design. We will show them on this website or in future edition of this book.

⁹³ www.sandved.com

see on butterfly wings comes from mutations and natural selection. A designer would also design what we see on butterfly wings and, for instance, design the protecting mechanisms for the butterflies they engineer, such as an image of a caterpillar drawn on the wingtips, as previously illustrated. A bird will try to get the fake caterpillar and miss the body of the butterfly, which will then fly away. But again, evolutionary theory does not explain how the design was put there in the first place. Mutations have to occur before they are selected. Random mutations have decidedly miraculous powers in the minds of evolutionists because the designs we find in butterfly wings are extremely improbable and practically impossible.

Furthermore, you will notice on the aforementioned picture that the caterpillar design on the butterfly wing has a friendly human face: eyes, eyelashes and a large smile! This is precisely what we should expect from a designer (even a human designer), while it is a highly improbable event from the evolution paradigm's point of view. In fact, the level of improbability is so high⁹⁴ that considering that it could have happened through a random process defies logic.

For a long time, many facts have been swept under the rug and ignored while others that fit more with the creationist paradigm have been hijacked by evolutionists. It is time to open the door to the idea of life having its origin from being part of a chain of creations by intelligent biological entities. We will, eventually, discover the extent to which

⁹⁴ The probability is in the order of one chance in a number that has at least thousands of zeros and this is a very conservative number. What that means is that it is practically impossible.

we have been biased toward some interpretations and how we have handled the facts and scientific publications on this fascinating subject. For instance, it is probable that evolutionists have been somewhat biased in selecting only facts, experiments, and publications that support the evolutionary theory.⁹⁵

This virulent fight between creationists and evolutionists, however, is no longer necessary. If there were a creation, it would be a scientific one. Regardless of whether it is creation or evolution, there is no mystical God! The only intelligence in the Universe has to be intelligent biological life forms. If some people say that God is an intelligent life form then it is not a god. It could then be better defined as one of the many intelligent extraterrestrial biological entities in space, which fits perfectly the view of this present book.

The origin of life in the universe

There is still a popular question that lingers and remains unanswered: “Was there a first life form that appears in the infinite universe?” First, with regards to our own origins, the answer to this question is most likely irrelevant because it is unlikely we would be the first life form. This means

⁹⁵ The wisest of scientists are realizing that the truth is bigger than themselves, hence integrity with the well-being of humanity should be more important than reputation or research funding. This is a condition for a paradigm shift: a minority needs to do the heroic gesture of saying what they really think so that the paradigm shift occurs. It will occur nonetheless but who will be the heroes who will participate in this scientific revolution? It is time to choose what role one wants to play in this important turning point in the Earth’s history...

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nothing is changed when it comes to our origin that is linked to the idea of controlled panspermia.

Second, the life propagation process does not need a beginning because, as we have shown, the universe itself has no beginning. Third, if life cannot originate from natural processes, then we are compelled to conclude that life itself has no beginning in an absolute sense and is a part of infinite chains of scientific creations, or controlled panspermia. This fits very well with an infinite universe that has no beginning and no end.

Theories of the Universe that include a beginning have to include a beginning to life and doing so shows how theories in physics can influence the choice of theories in the genesis of life. If one chooses to agree with the Big Bang theory, one is forced to agree that a chemical evolution must have occurred sometime in the past and then a controlled panspermia process would take over. But if there were no beginning to the Universe, life could very well be coming from an eternal process, especially when the evidence shows that life can only come from an intelligent process.

This is a crucial point. The body of evidence from computer generated simulations and theoretical statistics has shown that information cannot be generated from random events. It comes from artificial processes. That we know. We also know that life uses DNA and this is essentially an information-based system. It is actually the most efficient information-based system known to man and the only one that does not come from the human mind. Life is a system, however, that we would ultimately have

created in the future as a more technologically-advanced society.⁹⁶ Therefore, life has to belong to the artificial realm, which, in turn, has to come from an endless or infinite process of creations. Why? Because life cannot come from nothing or from a natural process and will always need intelligent life in order to be created and propagated throughout the universe. Because there is no beginning to an artificial cyclic process, this ultimately means that the universe had to be without a beginning. Such a fascinating conclusion is shared independently by the demonstration provided in Chapter II regarding the infinity of the universe. It is an interesting cross validation point.

Life and immateriality

There is something in life that can be seen as immaterial. The essence of life is not the atoms and molecules that compose it. Rather, it is the information contained in the DNA. But information is immaterial. It is not the molecules that code it as the same information could be supported by many other types of material. Indeed, you can write the same poetry on a piece of paper, digitally in a computer file or on the sand of a beach. While information absolutely needs matter to exist, it transcends it.

One day, when we will create human beings on other planets, we will try to explain to them that they have been made from dust (since they would not know about atoms and molecules). When they die, while they will return to dust, a trace of their existence will stay behind contained in

⁹⁶ This implies that this DNA technology comes from a more advanced civilization than our own.

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the DNA of the bones' cells. When they will ask why they do not look like dust, we will tell them that we put our thoughts, our mind or our spirit (DNA) into the dust to make it alive and make them look like they do. That is why they will keep this image in their mind that life contains a *soul* that still exists after death.⁹⁷ This is exactly what our own religions have retained from the teaching of the gods who came from the sky.

⁹⁷ Indeed, DNA still exists after death and this information could be used (coupled with another information system that would keep the information of the personality of an individual) to re-create the individual that lived through an advanced technique of cloning.

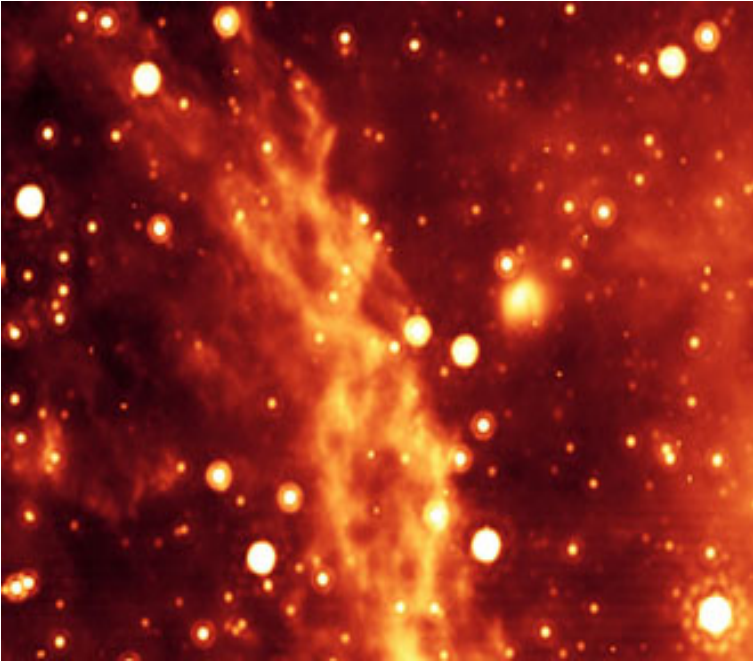


Image of the NASA Spitzer Space Telescope of the Double Helix Nebula

A message from ETs?

Fermi's basic principle of life propagation implies that the universe is full of life at different stages of civilization since progress in science and technology should be endless. This means that some civilizations could be advanced enough to manipulate stars and utilize them in a way that is helpful for some advanced purposes. We need to view space in a different light because, given this new situation, there may be many celestial bodies out there that have been

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modified by intelligent life forms and therefore, could be considered as artificial planetary bodies.

Let us imagine intelligent beings that were millions of years more advanced than we are. What could they possibly not be able to achieve? How many different layers in the infinitely small and the infinitely large could they control? Would they be able to physically move solar systems and stars? How much faster than the speed of light would they be able to travel? A million times faster? More?

In our galaxy, these beings would be able to communicate between each other and even meet, given the idea that space travel would not be limited to speed as we have shown in a preceding chapter. This would require a kind of common astronomical “clock” in order to be able to coordinate any type of planned communication. If we were to find such a clock, it would provide additional support for the abundance of life in this part of the Universe and the ability of its inhabitants to effectively communicate.

In 1967, a type of rotating star that emits a beam of radiation was observed for the first time. For an observer who happens to be on the beam’s path, a pulsation is registered due to the rotation of the star. This is called the lighthouse effect. These objects are called pulsars and their pulses are in the range of milliseconds. The regularity of the pulsations can be compared to those of atomic clocks and suggests that they are beacons from extraterrestrials. This is why the first pulsar was nicknamed LGM (Little Green Man). Naturally, the “artificiality” idea for the pulsar was rejected given the paradigm of the time.

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In light of the argument that we have presented that supports the infinite nature of the universe, the artificiality origin of the pulsars is exactly what we should expect.

It is also evidence of Fermi's idea. Pulsars should be part of the artificial celestial objects that exist in space and be used as a "time counting" device. We, ourselves, could use a pulsar to measure "time." When the time comes for us to meet our extraterrestrial "caretakers," they will introduce us to the "galactic clocks" so humanity can have scheduled communications and meetings.

On March 16, 2007, another discovery was made, by U.S. researchers while observing space through NASA's Spitzer Space Telescope. They spotted a nebula shaped like a strand of DNA in our own galaxy⁹⁸ some 80 light years long (see Double Helix Nebula's picture on a previous page). Possibly this nebula had been formed naturally, as anyone might assume, but perhaps it could be artificial.

Maybe it is a "neon sign" from intelligent beings, millions of years more advanced than we are, who have played with stars and moved them around in an artistic manner. Perhaps, they have been sending a message to all those who can observe it: "Life is out there!" But maybe it is too much for our brains to comprehend such concepts and scientific advances. After all, we are still very primitive and our body-humanity is not unified yet. It is still a "fetus" and has not given birth to a new and mature civilization.

⁹⁸http://www.nasa.gov/vision/universe/starsgalaxies/milkyway_twist.html

CONCLUSION

The purpose of this book is to help us think outside the box and re-examine our current paradigms regarding the structure of the Universe. The yearning for the truth is great in this world because there are still no clear answers to so many basic questions. Science should lead the way in understanding the universe and seeking the truth about it. Scientific inquiry is based on philosophical assumptions and some that the scientific community has used now need to be revised. No doubt that one day we will know everything that is essential but at this stage of our development we need to go through some more revolutions before we get closer to the reality of the Universe.

We have shown that the current theories of the Universe are fundamentally flawed and supernatural because they do not, materialistically, explain the forces that govern them. Gravity, weak/strong forces, and all other forces are still not explained in their structural mechanisms. That is why we have proposed Yin Yang movements to try to demystify the forces of the Universe.

The essential logically-based principle that changed everything is that there is no absolute emptiness. Consequently, the Universe is not an empty space containing disconnected objects; rather, it is filled with matter on all levels of space, which connect everything to everything else. In fact, what exists creates space and there is no space without substance. With substance comes vibration. Everything vibrates, everywhere.

The implication of this principle leads us further to the discovery of a universe that should be infinite, which excludes a god as creator of the Universe, as well as the notion of the Big Bang.

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We have inferred the existence of interplanetary and sub-quantum matter (SQM). We have shown that all cohesive forces of the Universe can be explained through the concentric movement of SQM, which we have called Yin and which integrates the smaller to create the larger. This concentric movement is due to the SQM pressure that moves where space-matter is greater. This is a new concept that emerged from the Yin Yang Universe. Space is not something by itself. It is intrinsically linked to what we call matter. Space does not exist without matter and vice versa and this is where the concept of space-matter comes from. Therefore more matter (increase in density) leads to more space, and more space allows the pressurized SQM to go toward it and continue toward the infinitely small that it contains.

We concede that this conception needs more clarification and is difficult to grasp and surely one day we will know more about this fundamental principle.

Yang then comes into play to counterbalance the decrease in SQM pressure caused by Yin in order to re-establish pressure. This centrifugal movement of the Yang results from the disintegration of matter that had been previously integrated by Yin. Therefore with Yin Yang, the whole Universe is always in a rebalancing equilibrium mode, i.e., in constant movement of Yin Yang since both are continually present in the Universe. It is the dance of the Universe, as goddess Shiva is perhaps poetically attempting to illustrate.⁹⁹

⁹⁹ Some representations of Shiva show the four concepts of going down (Yin), going up (Yang), creation, and destruction. This is quite close to the Yin Yang universe. Another indication that this knowledge may

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Goddess Shiva

The essential information has been set out in this book but much needs to be done to more accurately define the interactions between the levels of SQM and Yin Yang (especially in electricity and magnetism).

We leave the rest of the work up to you.

One of the huge philosophical impacts of this new vision is to realize that there is no god and life in the Universe is not a rare occurrence. The universe should, in fact, be full of life according to the controlled panspermia principle we have shown. We are not alone, and our own existence is

have been previously known, especially that we have now shown a possible relationship between extraterrestrials visitations and religions.

CONCLUSION

most probably linked to that of others who are watching us, our *parents* from space.

It is paramount for us now is to unite into one world and eliminate wars, in order to prove to ourselves and to those who observe us that we have a sufficient enough level of wisdom in our humanity to not be considered a threat to others in space. Our survival depends on it on multiple levels. The way we behave between nations is a very good predictor of how we will behave toward extraterrestrials and they know it.

So let us be very aware of this when devising strategies of behavior in anticipation of extraterrestrial visitations. We should not base these strategies on the obtuse views of individuals such as Stephen Hawking and the like. They incorrectly assume that ETs are as primitive as we were as a human society at the time of the "discovery" of the Americas by Europeans, which was not a good thing for the native people.

On Earth, our diverse societies are gradually evolving towards peace and this appears to be a natural tendency of human existence. While much more needs to be done, we can predict that we will become even more respectful of our differences and continue to progress toward world unification over time. If we do not do this, we will self-destruct and eliminate ourselves from the universe. Therefore, because of this principle, we should expect that an extraterrestrial civilization that is advanced enough to travel to our planet would also be peaceful as it would have successfully passed the test of self-destruction.

Our efforts to establish peace on Earth, an indication of our "coming of age", would not go unnoticed by those who are

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probably observing and monitoring our progress from above. Our civilization is likely being evaluated on this very challenge: our capability to control our own violence and aggression toward others that are different from us. This is directly linked to our capacity to live together in peace and harmony as a human society. If we could accomplish this ideal, it will enhance the likelihood that we would have an equal capacity to show genuine respect and love to whoever comes to visit us from other worlds. This would increase the level of trust they could invest in us. If we help ourselves toward refinement and harmony, *heaven* will be good to us. Without love, there is no future for us as a human society from whatever angle we look at it.¹⁰⁰

How would we explain the global arms race to a dispassionate extraterrestrial observer? How would we justify the most recent destabilizing developments of killer-satellites, particle beam weapons, lasers, neutron bombs, cruise missiles and the proposed conversion of area the size of modest countries to the enterprise of hiding each intercontinental ballistic missile among hundreds of decoys? Would we argue that ten thousand targeted nuclear warheads are likely to enhance the prospect for our survival? What account would we give of our stewardship of the planet Earth? We have heard the rationales offered by the superpowers. We know

¹⁰⁰ Stephen Hawking also assumes that the extraterrestrial visitors would not be connected to our own origins, which we have shown in this book to be exactly the opposite. In that case, ET's would be related to us the same way as a parent is related to his/her new born baby, which changes everything. But still, demonstrating our ability to make peace is paramount to our future as it may be a test that is independent to our relationship with those who observe humanity.

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who speaks for the nations. But who speaks for the human species? Who speaks for Earth?¹⁰¹

There are important changes to be made before it is too late. Let us use science spiritually, for peace and love only. In times of crisis we use the best amongst us. This time is now. The best of the best minds amongst us, especially among the scientists, should rise to this occasion and assemble to save humanity. Let's unite under this principle. We should be One people on Earth! This should be a priority. There is nothing more urgent. It is almost midnight on humanity's Doomsday clock! The sense of urgency is NOW, for there are only a few minutes left.

¹⁰¹ Sagan, *loc. cit.*: p. 329.

SPECIAL NOTE

SPECIAL NOTE

Since we present a model of the Universe attempting to explain its fundamental mechanism and indirectly suggesting that extraterrestrial visitations are extremely likely, we cannot omit to mention the following interesting correlations.

In 1975, a Frenchman, whose name is now Maitreya Rael, was invited to travel aboard a spaceship by the representative of an extraterrestrial civilization that created all life on Earth. According to what we have shown in terms of the power of propagation of life in the Universe, it is exactly what we should expect, i.e., to have been created by an advanced extraterrestrial civilization. This is the first correlation. Also, to be expected is for an encounter of the third kind with our creators to have taken place so that their message can be conveyed. The use of a messenger is also expected, as all past religions¹⁰² have testified.

The second correlation is relative to what occurred during Maitreya Rael's voyage to another planet in 1975 (the voyage lasted only a few minutes at a speed probably tens of thousands of times the speed of light). Here is his testimony:

“He invited me to sit down in one of the two chairs, settled into the other, and asked me not to move. He then pronounced a few words in an incomprehensible language, and I seemed to feel the machine rock slightly. Then all of the sudden, I felt a sensation of severe cold, as if my whole body was turning into a

¹⁰² Religions can be seen as sociological traces of an extraterrestrial civilization that had contacts with humans who were given verbal and written messages of the scientific creation by those extraterrestrials.

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block of ice, or rather as if thousands of ice crystals were penetrating all the pores of my skin, right down to the marrow of my bones.”¹⁰³

The Yin Yang Universe’s theoretical model predicts that a person travelling very fast into space in a spaceship will feel a cold sensation from each atom in his or her body (which replaces the principle of time dilation in the theory of relativity).¹⁰⁴ When I developed this model and understood what would happen at a very high speed, I remembered this testimony and was amazed as I felt, in a way, it validated both, this aspect of the Yin Yang Universe model and this testimony.

Further, important additional information was given to Maitreya Rael by extraterrestrials that can help us understand the impact on the earth of the traces left on Earth from their actions. The extraterrestrials revealed to him that they had built the continent of Pangaea¹⁰⁵ using enormous underwater nuclear-like explosions on an Earth that was initially entirely covered by uniformly shallow waters. As we were their first experiment of controlled panspermia, the extraterrestrials “evolved” in their ingenuity to create life. Our scientists interpreted this apparent “evolution,” in the shape and adaptation of life forms, as biological natural “evolution.” However, evolution did not occur by itself; it occurred in the minds of

¹⁰³ Rael, *Intelligent Design - Message from the Designers*, Raelian Foundation, 2005, p. 148 (first edition 1976). Free download at www.rael.org

¹⁰⁴ Chapter III, section on Relativity.

¹⁰⁵ The continent of Pangaea is the unique original continent that predated the actual five continents.

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those who created life. After several thousands of years, they destroyed their creation using nuclear-like bombs. Very early on, chemical engineer Marcel Terrusse, as well as others, have deduced the consequences of this bombing and, understood that Maitreya Rael's revelations were consistent with the known Earth facts that had been misinterpreted by classical models. Terrusse explained in one of Maitreya Rael's books¹⁰⁶ that these explosions broke up the single continent into five pieces: resulting in the current five continents. Huge tidal waves covered the continents that were moving on their continental plates and hollowed out huge canyons. The continental breakup cracked the Earth's crust causing numerous volcanoes to erupt. Most life forms were rapidly covered by the earth and the water and subjected to tremendous pressures. Their shapes were preserved in the new strata of soil and sedimentary rock created by the rapidly formed sediment deposits. These life forms are found today as fossils.

Huge forests were also covered and, without oxygen, transformed over time into huge underground reservoirs of oil and coal, depending on the presence or absence of water.¹⁰⁷ Traces of this huge explosion¹⁰⁸ are found in the form of craters.¹⁰⁹

¹⁰⁶ Rael, *loc. cit.*, p. 330 (first edition in 1976). Free download at www.rael.org

¹⁰⁷ The degree of water forming petrol or coal is an idea of mine.

¹⁰⁸ Two years after Marcel Terrusse's hypothesis was published (1978), Luis Alvarez and his son Walter, also a geologist, proposed that a giant asteroid or comet hit the Earth approximately 65 million years ago (the dating method has to be revised according to this new understanding) and caused the mass extinctions of the dinosaurs and over 70% of all

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These have been interpreted as being the result of meteor impacts because the basic assumption in science is that the origin of everything must be natural. The philosophical goal of this argument is to exclude the supernatural from science, which is the right approach, but unfortunately it has also created a bias against a type of non-supernatural phenomenon: an intervention by extraterrestrials. It is an extremely strong bias and, because of it, scientists have effectively dismissed any thoughts of intervention, extraterrestrials included. Every theory in existence today results from this scientific assumption. Therefore, this approach blinds us from recognizing the traces left by extraterrestrials.

Radioactivity and isotopes from the Earth's atoms were not formed naturally, as was previously assumed. The nuclear-type explosions used to create and destroy the Pangaea continent formed them. The "naturalism" assumption invalidates the current dating methods based on radioactive elements. There are many facts that have been dismissed out of hand because they do not fit the evolutionary paradigm, which requires a long period of time to have elapsed. These facts could be revisited now. The enormous

life on Earth. "This bold proposition resulted from their discovery, near the medieval town of Gubbio, Italy, of a centimeter-thick clay layer. They found that the clay contained high concentrations of the element iridium, extremely rare in Earth's crystal rocks but quite abundant in meteorites." A decade later, a team of scientists discovered a 150-mile wide crater near the Chicxulub village in the Yucatan Peninsula, Mexico. Scientists now agree that the impact was responsible for the extinction of dinosaurs. However, a nuclear-type bomb can also produce a crater as well as the iridium layer.

¹⁰⁹ This is the end of Marcel Terrusse's input in the Maitreya's book.

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nuclear-like explosions that formed and then destroyed the Pangaea continent created rock formations from enormous heat and pressure. Then water that flooded the continent, or continents, subsequently cooled them down very rapidly.

This is how radioactivity, which was generated by the bombing, encrusted itself in rocks. Since this was all done rapidly, it is possible we could still find traces of such rapid actions in the rocks. This can only happen if we look for traces, rather than dismissing them altogether as random errors or anomalies that will be explained later. This information changes everything because once we include an intervention by extraterrestrials in our history, we can explain much more about our past, on all levels.

It is hoped that some will find this information useful and will contribute to discovering more evidence to support this message from extraterrestrials. All this can be viewed as a theory, not a faith. Creationist and Intelligent Design scientists already have assembled much evidence, but their theoretical structure needs revision. Atheists who embrace scientific creationism or Intelligent Design¹¹⁰ as a branch of controlled panspermia will undoubtedly perfect this body of work.

I encourage you to visit Maitreya Rael's website. I understood that he is the representative on Earth of the extraterrestrial civilization that scientifically created humanity a long time ago. This civilization gave him a

¹¹⁰ Meyer, Stephen, C., *The Origin of Biological Information and the Higher Taxonomic Categories*, Proceedings of the Biological Society of Washington, 117(2):213-239.2004. Article available at: <http://www.discovery.org/a/2177>

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message for the whole world: www.rael.org. Once again, this is what we should expect from a civilization that created humanity: sending us messengers, and the last of these messengers, Maitreya Rael, came at a time when we were capable of scientifically understanding our true origin.

It is all in our hands now. But only the free thinkers can go against the normal view and not be afraid to make the revolution... Are you among them?

Postscript

POSCRIPT

For those who are interested in sharing their thoughts,
please go to www.theyinyanguniverse.com

Current information and forum will be accessible on
facebook: “**The Yin Yang Universe**”.

APPENDIX

Concentric fundamental forces (Yin) and the inverse square law ($1/d^2$)

The inverse square law is a result of the geometry of spheres that can be applied here because the movement of Yin and Yang are naturally centripetal and centrifugal, respectively. We will demonstrate this below.

Yin occurs at all levels of infinity and creates the condition for transforming matter from lower to higher levels of infinity. This process of transforming matter creates denser “infinities” which in turn create more space-matter for SQM to enter. That is why Yin has a faster concentric speed with respect to larger or denser objects, which in turn causes what we know as gravity to increase, all things being equal.¹¹¹

Similarly, we could compare this to a pressure chamber that has holes. The molecules of air will slowly move toward the holes, and the closer they get to the holes, the faster their movement.¹¹² This will correlate with the size of the holes: the larger the holes, the faster the air will enter the pressure chamber, hence the bigger the planet, the stronger the gravity. The changes in the velocity of the average molecule within the chamber that moves toward the holes will be in the range of $1/d^2$, which, interestingly, is associated with the gravitational field and other forces.

¹¹¹ The environment, however, changes constantly; therefore other factors may play a role which can affect this gravitational variation.

¹¹² The size of the hole, which, as an analogy, can be compared to the size of a planet, also increases the air speed.

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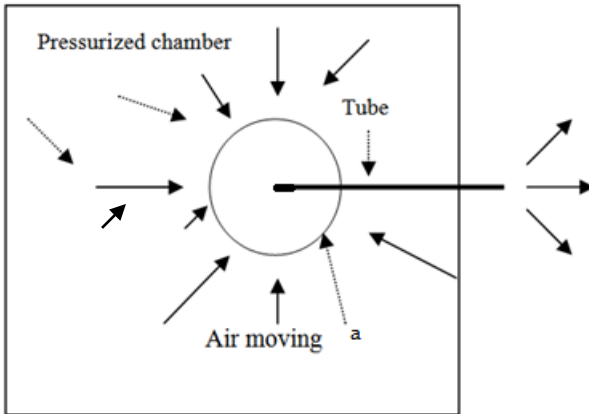
The $1/d^2$ law was derived from empirical observations and was formulated by Newton. According to him, the force of gravitation is directly proportional to the product of the two masses and inversely proportional to the square of the distance between those masses. The second part of the equation means that if the distance decreases by a factor of two, the force will increase by a factor of 4. Therefore, if the distance equals 1 then:

$$1/d^2 \Rightarrow \text{distance divided by 2} \Rightarrow 1/(1/2)^2 = 1/(1/4) = 4$$

To demonstrate why this law is in tune with gravity (or rather the Yin), let us begin by stating that a chamber will be equipped with an air pressurization system which will maintain the same pressure in the room whether or not air is escaping through the holes. Assuming there is only one hole in the chamber and a small tube is inserted into the hole until it reaches the center of the chamber, the movement of the air molecules will form a concentric pattern toward the opening of the tube in the center of the chamber.

If we light up all the molecules that are at a given distance from the opening of the tube (sphere at position “a” in following image) as a way to mark their progress, we would see a luminescent sphere that is shrinking faster and faster as it gets closer to its center.

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Let x represent the number of air molecules coming out of the system per second, and let us assume this number remains constant (the pressure also being constant in this example). In order for all the marked molecules to change from one position to another, we would have to wait until their number equals that of those that have gone out of the system. For a given distance from the opening of the tube (position a), let us say there are as many times more marked molecules as there are coming out of the system per second (x). It would then take one second for all the marked molecules to change to the next position.¹¹³

If the molecules are the unit, the area of the surface of the sphere can represent the number of marked molecules on the surface of the sphere (at a given distance from the

¹¹³ This is a distance of one molecule closer to the end of the tube.

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opening of the tube). The radius of the “*a*” position will be represented by the subscript *a*:

$$A = 4\pi r_a^2$$

In our example, we have set A (Area) as the number of marked molecules on the first position which corresponds to *x* (number of molecules at point *a*):

$$x_a = 4\pi r_a^2$$

With time, the luminescent sphere will shrink to a point (*b*) where the radius will be half of what it was at position *a*, and this will change the preceding equation to the following:

$$x_b = 4\pi \left(\frac{r_a}{2}\right)^2$$

$$x_b = 4\pi \frac{r_a^2}{2^2}$$

$$x_b = 4\pi \frac{r_a^2}{4}$$

$$x_b = \frac{4\pi r_a^2}{4}$$

$$x_b = \pi r_a^2$$

Since this result is 4 times less (2^2) than in the equation we started with

$$x_a = 4\pi r_a^2$$

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we end up with:

$$x_b = \frac{x_a}{4} = \pi r_a^2$$

If we have 4 times fewer molecules at the surface of the sphere at position b , this means it was 4 times faster for the marked molecules to fill level b from the position that preceded it, when compared to position a .

$$Speed_b = 4 \bullet Speed_a = \frac{1}{\pi r_a^2}$$

The geometry of the sphere imposes this. A faster speed or a stronger wind will equal a proportionally stronger push, which in turn will correspond to an indirectly stronger force. In other words, a faster SQM speed on an object corresponds to a stronger push being applied to it. Since pushing is the cause of force in this model, we have just discovered why gravity is, in fact, explained by the acceleration of SQM moving into the center of a planetary body, according to Newton's law, i.e., $1/d^2$.

The inverse square law exists because of the concentric movement of SQM, Yin. This concrete description leads to beautiful geometrical harmony. To be realistic, and therefore scientific, a model has to be concrete. This is what was just presented.

SQM is 100% matter and its movement explains gravity in its innermost mechanism. Not only does it explain gravity but it also explains all centripetal and centrifugal forces of the Universe, which are infinite in number, because of the infinite continuum existing from the infinitely large to the infinitely small.

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The inverse square law will be somehow affected by the multitude of different “bodies” that remove some of the pressure and influence the direction of SQM in a given environment. Moreover, we can expect that the pressure existing in a given environment will gradually decrease during the Yin state, and will, therefore, influence the speed of the concentric movement of SQM.

The flow of Yin does not remain the same with time. It should decrease over time (decreasing gravity) if no more SQM is added to the system in order to keep the pressure constant. The question then is how long it takes for this decrease to be perceivable.

There is at least one important difference between the geometrical movement of molecules toward a hole, and Yin. That is, SQM not only drags all objects with it but it also enters them (not necessarily all SQM but at least the lower levels of SQM). It enters everything and creates the concentric push for these objects to exist in the first place. A part of SQM going towards a planet for instance is used to go inside atoms composing the planet. But if a part of SQM, pushing down on an object under the influence of the Yin of a planet, is used for the object’s own Yin, this may, to some extent, decrease the SQM push on this object. Therefore, this may explain why the inverse square law is an approximation of the real movement and that is why some mathematical adjustments have been done, which came closer to model the Yin.

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The Bug Nebula (NASA)