



From the desk of Pierre Beaudry



HOW GOD FIRST CREATED MIND FROM TIME REVERSAL

By Pierre Beaudry, May 14, 2012.



“Molecular dissymmetry is the only sharp line of demarcation which exists between the chemistry of inorganic and that of organic nature.”

Pasteur

“The reconstructed pulse re-forms before the original intact pulse could have finished getting there.”

N.J., Lijun Wang

“We have to bring the future into being, because the locals aren’t providing it.”

Lyndon LaRouche

“God did not start by creating non-living matter, because he did not start from the beginning or from the bottom up. He started by creating mind from the end and from the top down.”

Dehors Debonneheure

Figure 1. God planning the creation of Adam in the back of His Mind, from the top down. (Chartres Cathedral)

FOREWORD

In order for man to change the universe as a whole, the time-frame has to be, paradoxically, the same that it took the universe to create man, except within a more contracted form. If the age of man on this Earth is about six or seven million years old at the most, how long did it take for the intention of his creation to enfold from the outside in, from the end to its beginning, that is to say, from the top down? When God created the universe, he first gave it a universal mind created in the image of His own creative powers, with a maximum and a minimum physical space-time extension that had the electromagnetic form of universal plasma. If this be true, then, the intention of the human mind was already there from the beginning, a few billion years ago.

It seems that the maximum aspect of the original electromagnetic plasma was the magnetic part which holds everything together under gravitation, and the minimum aspect enfolded with it was an electrical fluid. Thus, a universal living electromagnetic plasma process of change was created, with a universal mind of its own, when the maximum part was enfolded in a rotated solenoid, with the living spark of the minimum in a universal contraction that begat the three phase spaces of the universe from the top down in the top down order of the Cognitive, the Living, and the Non-Living, and not the other way around.

In projecting the universe forward in this manner, God created the paradox of space-time, whereby His universe could come back on itself and change its own past. Thus, God created a self-changing form of time that was appropriate to thinking processes and to living processes alike, by compressing forward into the future the creative form of time reversal. For human beings, this represents a unique ability to understand how the future gets to change the past. The question this paper is trying to answer is: How can man reproduce the power of the universe within a shorter and more compressed form of future time reversal than the universe took to produce the same power in the first place?

The most interesting feature of this divine time reversal function, however, is not only the fact that it is a shorter contracted infinite, but that it is contrary to the clock time of non-living matter. In fact, creativity works in that way so that it could be easily recognized. That creative form of time reversal contraction is the central paradox that has to be solved, today, if humanity is to get out of its present moral and economic crisis. The report contains the following six parts.

1. HOW MIND WAS CREATED FROM THE TOP DOWN BY DIVINE TIME REVERSAL
2. A COGNITIVE AND LIVING APPROACH TO ELECTROMAGNETISM
3. THE PRECONSCIOUSNESS OF MUSICAL TIME REVERSAL
4. THE PRECONSCIOUSNESS OF ELECTROMAGNETIC TIME REVERSAL
5. ANTIMATTEROFMIND FOR INTERSTELLAR TRAVEL AND MEDICAL APPLICATIONS
6. UNIPOLAR INDUCTION AND THE DISSYMMETRICAL FUNCTION OF THE UNIVERSE

INTRODUCTION: TAKE ONE STEP BACKWARD TO JUMP TWO STEPS FORWARD

How do you use the fallacy of images in order to see the truth of the mind which is without images? Most people have difficulty in understanding the idea of time reversal because they don't understand creativity. Creativity is rediscovering universal physical principles that most people ignore the existence of, because they are not looking for them. As a result, most people will not recognize a new creative discovery when they see one, and so, time reversal will always remain a mystery to them. They will never know what time it is, because time reversal is always ahead of time, that is, it exists as something that always takes place before its own time comes to be. The difficulty in understanding this process of time reversal is that you no longer have a fixed sense perception frame of reference for space and time. However, don't feel too bad about it. All you have to do is change your way of thinking about time and creativity by pulling the rug from under your feet when you least expect it, and jump ahead of yourself. Take one step back to jump two steps forward. Don't worry: you may surprise yourself, but you won't fall!

Think of this in the same way that Einstein conceived of the universe, as being "finite but unbounded." What is the difficulty? The problem is that the frame of reference changes as time reversal becomes the new measure of change. As Cusa demonstrated, this new measure exists in a finite manner whenever the minimum becomes the maximum; that is, when the finite becomes identified with the small, and the unbounded with the large. It is in that same sense that the future unknown can never be derived from the small, and must, therefore, always come from the large in the future, as Cusa explains in his *Of Learned Ignorance*. That unknown is the only *a priori* worth knowing. Don't try to get a picture of this before you experience it, because only an irony can depict that idea.

What the problem comes down to, is not a problem of language, but a problem of ideas. If you have the ideas, don't worry, the language will come to you if you work hard enough at it. Ironies will form naturally, especially in cultured languages, and in cultures of classical artistic composition. For example, when Einstein began to use the language of a universe that was a *continuum* in physical space-time, he did not simply replace the Newtonian language of absolute space and absolute time with a new word. He did not use the word *continuum* to replace the word *empty space*. This is not a matter of language, but a matter of mind. He used the idea of *continuum* to change your way of thinking about the universe. This is why his idea of a *continuum* was contrary to Newton's so called attraction of masses at a distance, because gravitation has never been the effect of a moving planet drawn at a distance by some rectilinear motion of attractive force. So, why is it that most people still think like Newton today? In fact, gravitation is the harmonic distortion of the *continuum* of electromagnetic plasma, through a mental and physical space-time. Gravitation is a change in curvature of the *continuum*. The reason is: sense perception.

1. HOW MIND WAS CREATED FROM THE TOP DOWN BY DIVINE TIME REVERSAL

On the Northern portal of the Chartres Cathedral, there is a magnificent statue representing the future. (See **Figure 1.**) The statue depicts God having the forethought of Adam in His mind before He created him. The design of Adam is not completely formed yet; he is standing in the back of God's mind, as if pre-existing in some form of incomplete life, and only in a partly detached form. This is a very nice metaphor of what is to come into being when you bend your mind toward the future, because, in God's mind, man is not yet a completed creation, or better said, he must be shown to reflect a state of pre-existing modality, as if an emerging design were coming from the future, like the pale phantom of a Proteus coming out of lifeless matter. Adam is portrayed as cold stone lifelessness, but with the germ idea of mental life in him. How can life come out of non-living matter? It cannot!

The planned idea of creating Adam exists like the overflow of God's love for mankind, whose own thought-seed must impregnate stone-like matter. What is the nature of this pre-existent state? Where does it come from? The paradox is clear: man comes from God's mind in the form of giving life to stone. What strange message this is. Creativity is giving life to the lower form of stone from above, by the intermediary of mankind. Such is the nature of the universe's future. Antimatter works exactly in this manner. Antimatter gives life to the non-living, in a manner such that God, giving life to man, is like man giving life to lifeless matter. That is a double time reversal process; that is, the process of designing it and of doing it occurs at the same time. It is not enough to simply describe it; you must illustrate the process by causing it to happen as the performative function of generating a new idea in another person's mind. That's the contraction of creative time reversal.

The reason I am starting this report with this imaginary process of God's intention for creating man is because when mankind is confronted with existential extinction, as he is in the present historical period, the most important question to ask is: ***How does a higher species come into being from the top down?*** Nicholas of Cusa illustrated this conception with the birth of Christ, when he wrote:

“Thus, just as God the Father formed by His own Spirit all of the things which by Him came forth from not-being into being, so by the same most holy Spirit, He did this more excellently when He worked most perfectly [i.e. when He formed Jesus].” (Jasper Hopkins, *Nicholas of Cusa on Learned Ignorance*, The Arthur J. Banning Press, Minneapolis, 1985, p. 136.)

Two things should be emphasized, here, with Cusa in relationship with the Chartres representation of the creative process. One is that Cusa shows how creation takes place from the top down, and not from the bottom up. In other words, the universe must not be considered from the standpoint of its particularities through sense perception, but from its universal characteristics which can only be apprehended through a higher intellectual knowledge. Secondly, Cusa implies that the process of creativity, through which the creator is united to His creature, can only take place through the maximum

unifying process of love. Again, this love is not a love of particulars as perceived by sense perception, but a love of universals as grasped by mind only.

Therefore, Cusa's conception of how the human species is created through the creative process of the Triune God, from His own God-Head, is very instructive for the purpose of understanding the epistemological implications of the time reversal phenomena of living and cognitive processes during this period of crisis. This subject matter of mind can be found in *Learned Ignorance* Book III, and the best illustration of this process is in the section on the creation of Christ as planned through the mind of the Father.

Why Christ? Because Christ represents the nature of universal change from the top down, from divinity to humanity, which is what you want to consider when you are required to reach out to the future for the creation of a higher species of human beings. Christ was not a man who became God; Christ is God who becomes man, from the top down. Such an event cannot be understood from the bottom up. This is the reason why the Christian religion, like most major religions, has failed, because divine things were brought down to the sense perception level of man as opposed to uplifting man to the intellectual level of divine principles. How do you go beyond the ignorant darkness of particulars and access universal things that sense perception cannot grasp? Double time reversal is the creative frame of creative time, however, I would add one word of caution.

For our purpose, here, this matter of mind is not to be considered as a religious question. This is an epistemological exercise which requires that our concept of immortality be purged and stripped of everything that is mortal, in order to better understand how and why new concepts that did not exist before need to come into existence, now, from the future. Our present day renaissance requires the construction of the maximum man of Cusa; that is, the construction of a man that is capable of existing primarily on the food of universal physical principles. This is what Cusa had called living in the imitation of Christ during the Italian Renaissance. And, this is what Lyn is calling on us to replicate again, today, yet under the economic form of a new American Credit System. The two are based on the same principles.

In Book III of *Learned Ignorance*, Cusa stressed the important difference between the divine and human nature of Christ, and he noted the reason why ordinary human beings could be led to a misunderstanding of the importance of the function of Christ. The difference lies between two very well known principles, the Oligarchical principle of pleasure and pain, and the Republican principle of the advantage of the other. As Cusa wrote:

“For since from the seed of Adam man is begotten with carnal delight (in whom, in accordance with propagation, the animality prevails over the spirituality): his nature, - which in its basis of origin is immersed in the carnal delights through which the man springs forth into existence by way of a father – remains altogether unable to transcend temporal things in order to embrace spiritual things. Accordingly, if the weight of carnal delights draws reason and intellect downward, so that they consent to these motions and do not resist them, it is clear that man so drawn downward and so turned away from God, is altogether deprived of the enjoyment of the

most excellent good, which, in the manner of the intellectual, is upward and eternal.” (Jasper Hopkins, *Op. Cit.*, p. 138.)

Thus, is established the choice between the enjoyments of two completely different and opposed principles that every human being is called to choose from. The maximum man of today must be measured by the purge of his sense perception domination in inverse proportion to cognitive universals, in order to eliminate the downgrading of the universe and increase his power to elevate mankind to higher levels of understanding the universe and his necessary function in that universe. The responsibility of the renaissance man of today is to coincide with the passion for the immortality of humanity. That is, the maximum humanity, since maximum humanity is the realization of the potential of all of mankind in each of us. Therefore, as Cusa demonstrated, he is in complete fullness of Him, only he who is in complete fullness of maximum humanity, by becoming the center of the circle in complete identity with its circumference.

2. A COGNITIVE AND LIVING APPROACH TO ELECTROMAGNETISM

With this Cusa conception and the Chartres statue in the back of our minds, let’s look at how electromagnetism may relate to creative processes of cognition and life. How do you relate electromagnetism to the three universal manifolds of Vernadsky, the Noosphere, the Biosphere, and the Lithosphere? At first glance, I don’t see any direct connection between them, except by way of looking for proportionality between the inanimate, the animate, and the cognitive principles of the universe and the three forms of action known as gravitation, electricity, and magnetism. However, a bit of history will be required, here, to level this bumpy terrain.

The connection between electricity and magnetism took a very long time to be known. The ancient Greeks appeared to be the first to discover how to produce static electricity by rubbing amber with fur or silk. Static electricity was probably also discovered in ancient China at an earlier time. The discovery of the virtues of the loadstone, on the other hand, goes even further back to the pre-Egyptian Astronauts who used it to orient themselves by floating a loadstone on a piece of wood, thus, generating the first navigational compass from the alignment of the earth to a North Star. But, none of the ancients knew how to relate the two processes of electricity and magnetism. Electricity was first used when early human beings realized the Promethean action of replicating the fire from heavens by rotating two dry sticks together.

However, the real connection between electricity and magnetism remained unknown for almost 3,000 years after their discovery, until Benjamin Franklin discovered the inversion process of electricity, by realizing that neutral bodies contained an equal amount of positive and negative electricity, and that friction contacts between two bodies could cause an amount of positive or negative electricity to be transferred from one body to another.

In 1747, Benjamin Franklin (1705-1790) showed the process of creating electricity by friction of silk or wool on glass, and demonstrated that electricity was not created out of thin air on that glass. The friction caused the transference of electricity from the rubbing material to the glass in such a manner that the glass gained as much electricity as the wool or silk lost, such that the total sum of electricity involved remained constant. Franklin created the terms *plus* and *minus* to facilitate the understanding between positive and negative states in the transfer of electricity between bodies. The glass gained positive electricity and the wool lost negative electricity.

Electricity was then, for the first time, understood as a single universal fluid (Ampère) that was neither created nor destroyed but could be transmitted from one body to another in positive or negative charges. As Franklin said of his Leiden Jar experiments that contained electrical charges: “So wonderful are these two states of Electricity, the *plus* and the *minus* combined and balanced in this miraculous bottle!” (Benjamin Franklin, *Experiments and Observations on Electricity, made at Philadelphia in America*, in I. B. Cohen, *Benjamin Franklin’s Experiments*, Harvard University Press, Cambridge MA, 1941.)

Thus, Franklin understood electricity as a fluid power that was able to transfer electrical charges from one body to another in the same way that the mind transfers ideas to other minds. As French Minister Jacques Turgot noted about Franklin: “*He snatched lightning from the sky and the scepter from tyrants.*” The difference, however, between electricity and mind is that the mind has the power to transfer ideas by generating higher energy flux-density, while electricity merely transfers part of what was already contained in the rubbing body. Or is there something else that I haven’t taken into account, here?

The first European scientist to demonstrate the definite relationship between electricity and magnetism was Hans Christian Ørsted (1777-1851) who, in 1820, showed that when a magnetic compass was placed close to a wire carrying an electric current, the needle would always follow the direction of the electrical current. (**Figure 2**) The implication was that electrical currents are magnetized. Some people began to realize that this was the way matter moved in the universe, as amatterofmind, but as they began to know how, they didn’t know why. Ørsted’s idea was picked up by Jean-Baptiste Biot (1774-1862), Felix Savart (1791-1841), and André-Marie Ampère (1775-1836), and these French scientists immediately recognized the revolutionary importance of the discovery.

Immediately after Ørsted’s discovery in 1820, Ampère developed the extraordinary hypothesis that magnetism was generated by electrical currents, and that such processes of magnetic phenomena not only were reducible to attractions and repulsions of electric currents, but that their combined actions were reflections of the creative process of mind in the universe as a whole. As a result of such a hypothesis, some people in the British oligarchy began to realize the danger that such a view of the universe represented for them, and a major state of warfare began to take shape between Continental Science and “British science.”

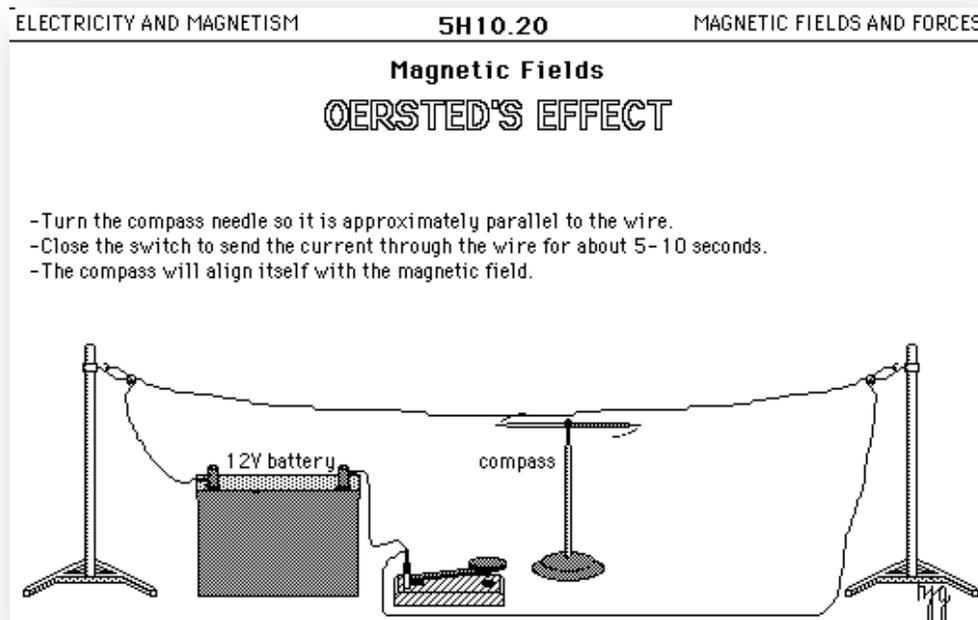


Figure 2. The [Hans Christian Ørsted's discovery of 1820](#). The experiment demonstrates that when a Voltaic battery sends an electrical current through a wire, the needle of the compass turns toward the direction of the flow. The direction of the magnetic field depends on the direction of the electrical current.

British empiricists made sure that the works of Ampère would either be kept hidden from the rest of the English speaking world, or would become bowdlerized by such empiricists as Michael Faraday and Clerk Maxwell, who would essentially concentrated their efforts on “visualizing” (Faraday) and “mathematizing” (Maxwell) lines of magnetic forces. The more you rely on the visual, the less you connect to the mind.

The best example of such a fallacy of composition is the treatment of the Pythagorean Theorem as expounded by Euclid in Proposition 47 of Book I of his *Elements*. As I have demonstrated in my last report on [Antimatter of Mind and Life](#), the proof of Pythagoras’s discovery is not the deception that has been historically perceived to be presented by Euclid’s reductionist bowdlerization of the so-called “Pythagorean Theorem.” The Pythagorean window of discovery is not a geometrical demonstration of the sum of two squares, but an epistemological demonstration of how the creative process of the human mind works when a discovery of principle is made by geometrical means.

However, Ampère’s electromagnetic conception was fortunately saved from oblivion thanks to [Wilhelm Weber and Carl Gauss](#), who both avoided the Faraday-Maxwell trap of reducing electromagnetic processes to sense perception. However, Weber and Gauss were unable to prevent British empiricism from taking over science with their mathematical concoction. This only goes to show to what extend the fundamental role of epistemology has been neglected in science, and to what degree oligarchism has dominated the domain of art and science more generally. What is required for retrieving the creative powers of mankind is no less than an outright epistemological revolution against British empiricism. The

battle lines are clearly defined: either the oligarchical “practical standard” based on sense perception is destroyed, or the “creative standard” of science based on mind will be eradicated from the face of the earth for a long time to come.

Briefly, just to summarize the point of contention, let me identify the main steps of the discovery of electromagnetism from the standpoint of epistemology. When, in 1820, Ørsted experimented with an electric current and a compass, the needle of the compass tended to be oriented at right angle to the current, and when he turned the direction of the current around, the needle be oriented to the other way, but also at a right angle. Ørsted published his findings, but he did not explain why the magnetic needle acted in that way, or what that meant for his mind.

When, a few weeks later, Ampère replicated the Ørsted experiment, and presented his results to the Académie des Sciences, on September 18, 1820, he had a hypothesis in the back of his mind. (See André -Marie Ampère, *Mémoires sur l'Électromagnétisme et l'Électrodynamique*, Gauthier-Villars et Cie., Paris, 1921.) Ampère hypothesized that if the current in the wire exerted a magnetic action on the compass needle, it was because electricity had to be magnetic by nature and, therefore, a similar effect could also be generated when two such live-wires interacted with each other without the presence of a magnet. This idea was not obvious at all, but Ampère wanted to prove that electricity and magnetism were two aspects of the same higher order phenomenon of multiply-connected physical circular action.

In other words, the discovery of Ampère was not that electricity and magnetism sometimes related to one another to produce some electromagnetic action in the universe. The discovery was that electromagnetism was the higher form of action in the universe that produced both electricity and magnetism in a dissymmetrical manner. The nature of electricity is to be magnetized as the nature of magnetism is to be electrified: you don't have electricity without magnetism and you don't have magnetism without electricity: thus, the electromagnetic field is a doubly-connected manifold.

So, Ampère first experimented with parallel conducting wires to demonstrate that, depending on the direction of the electrical flow, the two wires always affected each other like magnets: when their orientations were opposed, they were repelled, and when their orientations were the same, they were attracted to each other. It is the chirality of the current that determines the polarity. Ampère demonstrated this in another experiment where he showed that by rotating an electrical wire into a coil, the geometrical helix, which he called solenoid, generated north and south magnetic poles, just like a bar magnet. With this higher hypothesis in the back of his mind, Ampère had discovered the principle of a new science that he called electromagnetism.

However, Ampère had discovered more than a new science. He had also discovered that it was this dissymmetry of electromagnetic currents that determined the inverse proportionality between their directions through the proportionality of their intensity. This was a major blow to the so-called “inverse square law” of Newton, because Ampère was able to demonstrate that what was considered a “law” by Newton was not a law at all. Ampère had proven that the inverse square of the distance between electrical currents was merely the effect of an electromagnetic “molecular flow,” not the cause of it. The inverse square business was proven to be merely a means of giving mathematics a higher status than the physics of reality. Unfortunately the mathematical tools took over and replaced the physical flow of both

electricity and magnetism and kept them separated one more time. Both were made separate, but mathematically equivalent: equations for electrical charge were made to reflect the same as magnetic strength. The fallacy of composition of the inverse square law had come around full circle to become the master of the unified field and, as if no one had noticed, mathematical law replaced physical reality.

But, Ampere had discovered a higher principle that reflected a relationship between a universal physical principle and universal mind and life. Ampère realized that, like ideas, electromagnetic effects were not based on kinematic action from the bottom up, but on an attraction or repulsion force that depended on the intention and orientation of the currents through a conductor, from the top down. In other words, from the standpoint of epistemology, Ampère's discovery of electromagnetism was monumental, because it demonstrated the epistemological validity of time reversal chirality as a function of the physical universe as a whole which is similar to thinking and living processes. In other words, by displaying right handedness and left handedness, electromagnetism reflected the dominant characteristic of living and thinking principles in the universe. Thus, for Ampère, electromagnetism was understood as a universal characteristic of the physical universe considered as a matter of mind.

However, for British scientists, the same electromagnetic process became a trap for sense perception. For example, for empiricism oriented scientists, like Faraday and Maxwell, the notion of a magnetic field was reduced to some imaginary magnetic lines of force as opposed to a closed and impenetrable electromagnetic enveloping field. The fixation on such visual imageries came from the perception of how iron filings organized themselves around a bar magnet when set on a flat board.

Such magnetic lines of purely imaginary nature were concocted by Faraday because he gave priority to his sense perception over his thinking processes, a condition that some have attributed to a learning disorder known as dyslexia. According to an extremely revealing study by Thomas G. West, both Faraday and Maxwell suffered severely from dyslexia. In fact, the author showed that gifted dyslexic people who generally suffer from learning difficulties often greatly increase their visual ability to compensate for their impaired thinking process. Although Faraday and Maxwell had great talent for mathematical concepts, they had no understanding of reality outside of their reduced field of sense perception. They interpreted everything according to what they perceived, or ought to perceive. However, from the standpoint of epistemology, even when one is tempted to attribute increased "visual thinking" as proof of a high creative potential, as the British cultural matrix demonstrates, one must not mistake cognitive lines of thought with mathematical "lines of force." (See West, T.G., *In the Mind's Eye: Visual Thinkers, Gifted People With Learning Difficulties, Computer Images, and the Ironies of Creativity*. Buffalo, N.Y.: Prometheus Books, 1991.)

It is this fallacy of composition known as "lines of force" and "electromagnetic field lines" that provided the basis for the mathematics of Maxwell, which, in turn became the foundation for modern physics and which defined, for the next hundred years, the conceptual relationships among electricity, magnetism, and gravitation as three separate fields. This is one of the reasons why, to this day, we are still trapped in the Newtonian fallacy of empty space and of action at a distance. As Maxwell put it: "For instance, Faraday, in his mind's eye, saw lines of force traversing all space where mathematicians saw centers of force attracting at a distance." (Thomas G. West, Op. Cit., p. 31.) So much for the practical man of science.



Figure 3. How the Earth’s electromagnetic field changes deadly solar flares into aurora borealis.

On the other hand, it is the doubly-connected motion of a dissymmetrical principle, in the manner understood by Ampère, Weber, Gauss, and Riemann which is the basis for electromagnetic phenomena, not imaginary mathematical lines drawn on some plaster of Paris surface. When solar winds move cosmic electromagnetic charged particles in the direction of the Earth, and when they reach the magnetosphere, charged wavicles cannot penetrate through the shield, as if by insinuating themselves between the “lines of force.” They are either deflected, or they are absorbed within the walls of the magnetic field, as manifested by the protective curtains of aurora borealis. (See **Figure 3**) If lines have to be drawn at all, they should imply directionality, not an invisible physical reality that does not exist.

Contrary to sense perception expectation, therefore, if one were to approach the magnetic shield of the magnetosphere from the vantage point of the irony of discovery exhibited in the mental act of creation, as it were, from outside the domain of sense perception, one might have a better chance to seize upon the truthfulness of the manifold of an electromagnetic surface around our planet that is constructed like the required dissymmetric gestalt of how everything is held together separately, but seamlessly, inside and outside of the same field. “Lines of force,” on the other hand are like drawings of a child on a clean wall. The child can draw anywhere he wishes, without fail, because the wall is always there to absorb his fancy. So, British empiricism should be treated in the same manner, as a learning disability; because, in final analysis, British empiricism is, itself, nothing short of a cultural form of dyslexia.

3. THE PRECONSCIOUSNESS OF MUSICAL TIME REVERSAL

In a previous report on [*The Music of the Magnetosphere*](#), I began to investigate how time reversal was a measure of change for the magnetosphere of the earth in a manner such that if you know, ahead of time, how the magnetosphere reacts to the periodical activity of sun spots, in concordance with the well-tempering tuning of J. S. Bach’s Lydian Modality, you would be able to forecast properly the weather for our planet as a whole. The central point I had focused on, which Lyn had many times

emphasized in this connection, was that the only way to access creativity in the universe as a whole, as in our solar system in particular, is by applying time reversal to the process of creativity from the top down, that is, starting from the human mind. As Lyn said:

“This question that I’ve raised, of this reverse order, that life is not directed in the same direction as non-life; secondly that human creativity is unlike any other form of creativity we know, as a living form in the universe. And if we don’t achieve a grasp of human creativity, in the sense that Classical poetic composition, represents that; if a moment of prescience of the principle of creativity in a musical composition, expresses something, *as if* from the future, spoken to the present, *that is what the true passion is: When the future speaks to the present, moment, that you know is creativity.*” (Lyndon LaRouche, *NEC Meeting for Tuesday*, April 17, 2012.)

In a sense, what Lyn called his “great virtual hypothesis,” is what I would call an “epistemological inversion hypothesis.” Let’s take an example in the classical repertoire of Beethoven, and examine how Beethoven forecasted, on July 1, 1801, what was about to become the greatest axiomatic change of his life, in the immediate future ahead.

As he explained in a letter to his brother about his devastating loss of hearing: “I am resolved to rise above every obstacle.” It was during this short period of 1801-1802, that he wrote his *Piano Sonata Opus 27 in C-sharp minor* which is a reflection of the great battle that he waged in anticipation of a resolution to his crisis. This may be considered one of the greatest emotional and intellectual breakthroughs in all of musical history. Is this comparable with how the magnetosphere of the Biosphere transforms magnetic radiation storms into tropical storms in the atmosphere of the Earth? I don’t know. Are there comparable time reversal processes in other great classical musical compositions? I don’t know either, but, I suspect that great electromagnetic processes of increase in energy flux-density, as the one displayed on April 12, 2011 with the Crab Nebula, may be comparable in magnitude to what Beethoven has written in his *Sonata Opus 27*.

As Lyn showed, when you anticipate an idea that is creatively fruitful, it takes place in the future before coming into being. This is the paradox of creativity that Lyn has been discussing for some time now, and which can be illustrated by the fact that creative artists and thinkers experience time reversal in some pre-conscious form that is generated as if from between or behind the notes. Cusa also intimated the same idea in the section of *Learned Ignorance* cited above, in which he insisted on the fact that the most truthful means that a teacher can convey the idea of the creation of Christ in sense perception was through the poetry of the word whose breath expresses the “sound” in a manner that befits the mental creation of the Word. As Lyn put it, you can pre-think this sort of existence musically before it comes into existence:

“The best way to do it, is to think about the great composers, the great painters, and the great artists of past history, the great thinkers of past history. And to realize that they had the ability, to *pre-think*, and pre-experience, a conception which they had never known before! And to reach that achievement with a certain degree of *certainty*. Then you see this, when you think about how does the human mind work, -- it’s simple. Hmm? How does it work, as a creative mind, in solving problems? It does exactly that! And that’s what we have to perfect.” (Lyndon LaRouche, *NEC Meeting*, Tuesday, April 10, 2012.)

The point Lyn is making is that all musical compositions, classical or otherwise, must always be conceived as reflecting a state of mind. The sounds that you hear in music have not been designed and composed for your ears, but most importantly, for your mind. The intent of music, any music, is always to impact and give direction to the mind. Here, Beethoven has a conflict to resolve, which happens to be the greatest conflict of his life: his deafness. Therefore, his choice of musical composition must reflect not only how he must resolve the crisis, but, also, how a universal axiomatic change must take place in the universe as a whole.

Apply this idea to the *adagio sostenuto* movement of *Sonata No. 14 Opus 27*, and concentrate more specifically on measures 28 to 39, in which Beethoven is reaching out to God the Creator, calling for help. Clinically speaking, Beethoven was foraging for an idea to solve the terrible state of crisis that he was in, as he could only hear his music in his mind. Therefore, those few measures must be played like a *seeking function* in search of a solution, but whose music can only be heard and replicated in your own mind as well. These first four measures must be played like two counterpoint repetitive calls for help with an echo of another voice coming back from the future as the answer. (Figure 4.)



Figure 4. Beethoven *Piano Sonata No 14, Opus 27*. First movement, measures 28 to 39. This section of twelve measures represents the pulsating spirit of the entire Sonata.

The Lydian germ of the solution is already beginning to grow by anticipation within a few intervals of measures 28 to 31. But, the echoes do not realize the change that is called for. The echo merely repeats the same, within the interval of an octave. Measure 28 is the first call and measure 29, the first echo. Then, measure 30 calls again and measure 31 is the second echo response. Suddenly, measures 32 and 33 formulate the divine answer in which divine intervals demonstrate how Lydian dissonances find resolutions by always reaching upward in the higher universal principles, and only by generating solutions to problems from the top down. Again, measures 34 and 35 generate the same solution for a different key. Then, from the highest point, Beethoven is taken by the enthusiasm of the discovery. It works. Beethoven is elated. He's got it! The descending measures 36 to 39 must reflect the joy and laughter of the solution.

It is interesting to note that, in Beethoven's original manuscript, measures 32 to 37 (the response from God) were the only measures to be marked with extensive correction scars, as if they were the shadow remains of a battle that Beethoven had waged in his fight against his own dyslexia, his own proclivity towards sense perception. **(Figure 5)** This is the place where Beethoven fought and won the battle against his sense perception demons by discovering how he could solve the crisis through questions and answers of Lydian dissonances. Here, Keats would say that Beethoven abandoned the music of the flesh in order to ascend to the unheard "spirit ditties." The full resolution of Beethoven's crisis is expressed by a similar outcome near the end of the third movement at the Lydian measures 164 to 167, as I have demonstrated in my earlier paper on [THE TRUTH ABOUT BEETHOVEN'S SO-CALLED "MOONLIGHT SONATA"](#).



Figure 5. Beethoven Piano Sonata No. 14, Opus 27. Manuscript page of the first movement, measures 27 to 37.

This manuscript passage, from measure 32 to 37, is an excellent illustration of the footprints left by an axiomatic process of change that took place in Beethoven's mind, which expressed the unity of effect that Beethoven was looking to create for the whole composition. In that sense Beethoven shows how he lived through an experience of *pre-thinking*, which was an anticipatory form of yearning for a solution to the crisis he was in, and which he could only find by projecting his intention into the future. Thus, by discovering the time reversal function of a series of specifically *pre-sensed intervals of ostinato triplets* that had expressed the throbbing of his pain, as Mozart expressed in a similar painful section of *Don Giovanni* (measures 186-189), Beethoven resolved the greatest crisis of his life by means of this musical Lydian modality, as if he had gone through an electromagnetic battle with the galaxy.

The point that is too often missed, here, is the fact that this battle was a battle for a moral solution, not a musical one. In the domain of creativity, there are no battles that are not grounded on a moral intention for the improvement of mankind. Beethoven's problem was precisely such a moral fight between the oligarchical principle and the creative principle, the same battle that Mozart had waged with *Don Giovanni*, in his fight against the Habsburg Empire. In fact, Beethoven explicitly stated to his brother that his battle was with God over these principles. But, the solution to the crisis was already at hand in the anticipation of his intention, ahead of time, even before its intention had finished being actualized in its musical form, when Beethoven had decided in favor of mankind. It was that very moral bending of his mind, ahead of time into the future, which led him to solve the crisis.

Similarly, as Cusa demonstrated in the domain of religious matters, the higher truth of the Word of God is to be found in the moral intention of music, with the inbreathing and outbreathing of the Word, through the Spirit inside of a well-tempered musical composition for the improvement of mankind. As Lyn confirmed:

“What the proofs flowing from those lines of investigation exposed, is the relevant passages of a composition engage the role of the performance of a Classical musical work in counterpoint which arises as pre-sensed tone which exists only as a “future” tone which is to be actually sensed, and that truly, before it is actually heard in the equivalent of “normal clock time.”

“There is also, as Furtwängler demonstrated, a “ghostly” after-tone a whisper later.

“The crucially specific implication of this “ghostly” phenomena (sic), is fairly summarized as the manner in which the experience of the future precedes, preconsciously, what is heard as the present. (Lyndon LaRouche, [Time For Glass-Steagall in Britain?](http://larouhepac.com) larouhepac.com)

4. THE PRECONSCIOUSNESS OF ELECTROMAGNETIC TIME REVERSAL

Let's go back to electromagnetism with this musical experiment in the back of our minds. Now, apply this same principle of time reversal to the electromagnetic phenomenon of [superluminal speed](#). Take the case of superluminal evanescent waves that cross your common sense barrier of space and time,

and ask yourself the question: How can a flash of superluminality travel beyond the speed of light? How do you deal with the flash of a laser light that goes through cesium vapor in such a way that it can be reflected back and leave the place it has entered into, before it finishes entering into it? What sort of flashback is that, which travels back faster from the future than its forward motion from the past; as a matter of fact, 310 times faster? If this is confusing for you, then, you are in the appropriate state of mind to understand time reversal.

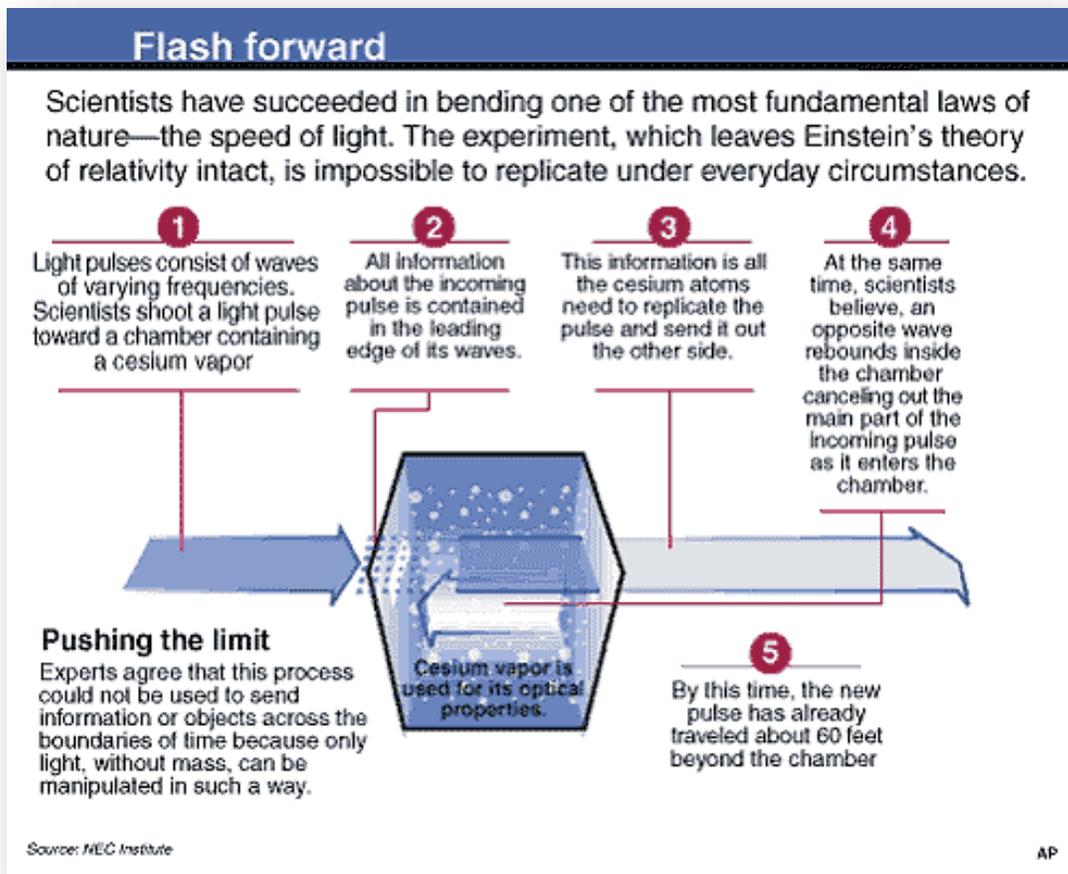


Figure 6. “In that condition, a pulse of light or “wave packet” (a cluster made up of many separate interconnected waves of different frequencies) is drastically reconfigured as it passes through the vapor. Some of the component waves are stretched out, others compressed. Yet at the end of the chamber, they recombine and reinforce one another to form exactly the same shape as the original pulse, Wang said. ‘It’s called re-phasing.’ ” [superluminal speed](#).

Nature Magazine of January 2011 reports that a scientist from the NEC Research Institute in Princeton N.J., Lijun Wang and his associates, succeeded in projecting a laser light that traveled faster than the speed of light. Aside from contradicting our sense perception of space and time, this experiment appeared to defy the limit assigned by Einstein’s theory of relativity with respect to the speed of light of

186,000 miles/sec. (See **Figure 6**) However, this is not the case, because $E = mc^2$ only applies for something that has mass. In other words, this boundary condition only applies to the axiomatic change between matter and antimatter. The point to understand is that the rules that existed before the change no longer exist after the change.

What Wang and his associates did, is they went beyond this matter-antimatter limit by demonstrating that you can manipulate massless waves of light into behaving differently than anticipated with the speed of objects. They went into the next unknown yet to be known. They anticipated something that demanded a new possibility that did not exist before, and therefore, demanded a new solution that they knew had to exist! They followed the pathway of an idea they had in their minds and applied it to a physical anomaly. The idea was to push the Fermat refractive index of least time beyond the physically known limit.

As Fermat demonstrated, a beam of light will travel more slowly in a denser medium, and therefore, will travel at different speeds from one medium to another; about 3/4 of its vacuum speed in water, and 2/3 of its vacuum speed in glass. This is the principle that Wang applied to a new medium of his own harmonic composition, but under reversed condition, which he composed from a carefully measured Cesium vapor that was able to increase the speed of light waves by greatly decreasing the refractive index to about 1/300 times their vacuum speed; that is more than the time it would take for light to travel at 186,000 miles/sec. In so doing, Wang demonstrated the reality of the superluminal paradox: *“The reconstructed pulse re-forms before the original intact pulse could have finished getting there.”*

(http://bruceleeewe.wordpress.com/category/extreme-tech/?blogsub=confirming#blog_subscription-2)

When the wave packet is re-phased and reflected back from the future, it travels 310 times faster than the speed at its entry point, and comes back before the past moment of its projection has elapsed. In other words, within its own time reversal function, the future skips behind the present into its own pre-thought intention! The question, then, is not: Are we close to apply this new technology of superluminal speeds and ready to begin engineering a new form of vacuum of physical space-time? No. The question is rather: are we beginning to realize that the higher phase-space of superluminal creativity in the universe actually reflects the creative process of the human mind? In other words, since empty space does not exist, it would be ironic if it were created, artificially, for the purpose of demonstrating psychophysical parallelism between the creative process of the human mind and the creative process of the universe.

At any rate, since the speed of light is what dominates the universe of sense perception, any experiment which goes beyond the limit of $E = mc^2$ is welcome as a matterofmind bonus. Aside from being a nice illustration of the creative human mind, the superluminal paradox may provide us with new insights into medical applications and into higher forms of space propulsion.

5- ANTIMATTEROFMIND FOR INTERSTELLAR TRAVEL AND MEDICAL APPLICATIONS

The most exciting capabilities of spacecraft travel based on antimatter has been explored for several decades by James Bickford of the Draper Laboratories in Boston MA who has written an extensive report on the future potential for space travel using antimatter as a fuel. [Extraction of Antiparticles Concentrated in Planetary Magnetic Fields](#) demonstrates how supplies of antiprotons being trapped in the magnetosphere of the Earth and other planets could eventually enable man to extend space exploration to the stars of our galaxy through relativistic velocities.

According to Bickford, antimatter is being produced regularly around our planet by the interaction between galactic cosmic rays (GCR) and the magnetosphere of the earth. As Bickford put it, “The antimatter is created by converting the kinetic energy of the incident GCR particle into mass during a high energy collision with another particle. Orbital and high altitude balloon measurements have confirmed the fractional existence of antiprotons in the normal background of ionizing radiation “(James Bickford, [Extraction of Antiparticles Concentrated in Planetary Magnetic Fields](#), NASA Institute for Advanced Concepts (NIAC), Phase I, Final Report, Draper Laboratory, Cambridge Ma, April 2006 p. 5)



Figure 7– Artist concept of the proposed antimatter collection system. This Bussard magnetic scoop is based on the concept of superconducting rings capturing antimatter particle as fuel for interstellar travel. (James Bickford)

The idea is to recreate a mini magnetosphere formed around a spacecraft as illustrated in **Figure 7**, and use the concept of the Bussard magnetic scoop to capture the naturally circulating anti-particles within the boundary limits of the Earth’s magnetosphere, and then store them for the purpose of interstellar space travel. Several planets of our Solar System which have similar strong magnetic fields as the Earth, such as Jupiter and Saturn, could be used as filling stations for traveling outside of the solar system. In terms of space applications for a flight to Mars, Bickford considered that the current NASA

evaluation of a one way flight-time of about 180 days would be reduced to 45 days with the use of only 30 nanograms of antiproton.

However, the essential of the process is made to replicate what goes on in the human mind. Therefore, the point of interest for epistemology is that of generating increases of this higher energy flux-density fuel located at the boundary limits between the outer domain of cosmic radiation and the magnetosphere. This Bussard discovery represents an axiomatic moment of change that is similar to the event of an axiomatic change in the human mind. The scientific concept for the containment of antimatter is located in the central singularity of the Torus, which rotates by inversion like an epistemological discovery of principle. However strange these conceptions may appear, they are not new.

Former Director of Fusion Energy Research at Los Alamo National Laboratory, Robert W. Bussard, was the first physicist to promote the colonization of our galaxy during the 1950's, especially by inventing the Bussard Interstellar Ramjet for the purpose of traveling to the potentially habitable solar system of the North Star Vega. (Dr. Robert W. Bussard, [Life in the Galaxy](#), Far Frontiers, Volume II, April, 1985.) In another Los Alamos Memorandum, dated 1947, physicists Stanislaw Ulam and Frederick Reines had already made preliminary calculations for interstellar travel by means of nuclear pulse propulsion.

There are also a number of non-space applications of antimatter, such as medical diagnostics and treatments on inoperable cancer tumors. Aside from these practical scientific advantages, the multi-functionality of the Bussard magnetospheric collector represents the highest form of energy flux-density known to mankind. Bickford established the following list of comparative increases in energy flux-density for the purpose of demonstrating how the Promethean human mind is capable of harnessing higher forms of fire systems.

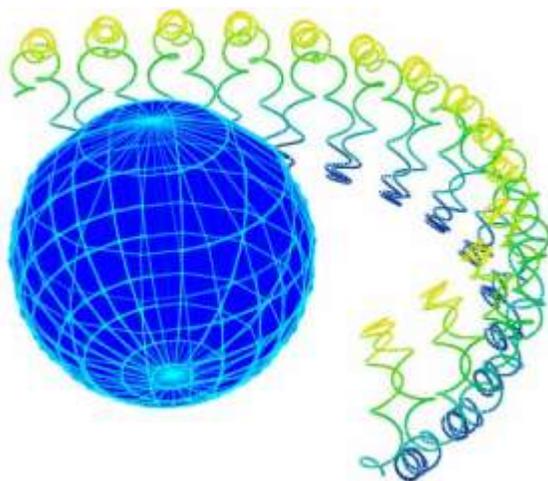
Fuel	Energy Density (J/kg)	Notes
Battery	7.2×10^5	Lithium Ion
Chemical	1.4×10^7	LO2/LH2
Fission	8.2×10^{13}	U235
Fusion	3.4×10^{14}	DT
Antimatter	9.0×10^{16}	$E=mc^2$

The stumbling block, here, is not the prohibitive cost of such a harnessing, manufacturing, and storing of antiprotons on earth for an extensive period of time. Such a program of high performance propulsion cannot and should not be constructed on Earth. It can only be constructed in space, that is, only in geostatic orbit within the magnetic field itself. Why? Because the idea is to create a magnetic field within a magnetic field. It can only function galactically as a thought within a thought; that is to say, a doubly connected Riemannian manifold. The stumbling block, therefore, is that this new epistemological outlook requires a totally different state of mind that people are not generally accustomed to, on this planet, especially during the last three thousand years of oligarchical domination. This is why the problem must be tackled from a political and epistemological standpoint of second degree. The issue is not one of

oligarchical practicality, but of human creativity, simply because the process of an electromagnetic harvesting of antimatter is, itself, a mental reflection of the creative process of the universe on itself. And, that is why you can know ahead of time and forecast by time reversal how this process will work.

IN SITU PRODUCTION AND TRANSPORT

“A natural antiproton radiation belt can be generated in a manner analogous to the traditional Van Allen radiation belts which surround the Earth. The high energy portion ($E > 30$ MeV) of the proton belt is primarily formed by the decay of neutrons in the Earth’s magnetosphere. The GCR flux interacts with the planet’s upper atmosphere to release free neutrons with a half life of just over 10 minutes. A fraction of these neutrons travel back into space (albedo) and decay into a proton, electron, and an anti-neutrino while still within the influence of the magnetosphere.”



“The magnetic field of the planet forms a bottle to stably hold the protons and electrons from the decay process. If the trajectory of the ejected proton from the decay process is outside of the planet’s loss cone for magnetic confinement, the proton will be trapped on the magnetic field line (L-shell) on which it was formed. The periodic motion is explained by the Lorentz force which causes the particles to spiral along the magnetic field lines and mirror between the North and South magnetic poles. In addition, the particles have a slow drift motion around the planet. As particles are lost through diffusion and loss processes, new ones are generated to maintain a quasi-static supply trapped in the near dipole field of the Earth.”

Figure 8 – “Motion of a charged particle in a planet’s magnetosphere.” (James Bickford, Op. Cit.)

Take the interaction between cosmic radiation and the atmosphere of our planet as a case in point. How do you master that? Well, how does the galaxy master that? First of all, the galaxy is not required to go through the difficulties that Earth based production and storage would require. What does she do? The galaxy organizes the Earth’s magnetosphere to do the work of three fundamental processes by creating:

- 1- A natural collection and trapping system within its magnetic surfaces.
- 2- A naturally replenishable antiparticle fuel storage.
3. A natural radiation shield to protect antimatter from coming into contact with matter.

That is what man must also do in realizing that the creative process of the galaxy must imitate the human mind. When you think of it, those three requirements are nothing less than mental requirements for the development of a new galactic way of thinking, with the additional requirement of creating a propulsion system, which the sun is also capable of showing us how to create by means of Birkeland Currents. As a result of solving those problems, as taught to us by the creative processes of our own minds, man should be able to build a spacecraft in accordance with the requirements that Bickford put forward. As he wrote, the main requirements are:

“A large dipole magnetic field can be advantageously applied to collect the concentrated antiprotons from their natural environment offering the potential for a nearly limitless supply of antiprotons without the difficulties of Earth based production and storage.

o A spacecraft surrounded by a ring of superconducting wire can be used to induce the required magnetic field for the scoop.

o The mini-magnetosphere generated around the spacecraft can also be used to store the antiprotons for later use.

o The magnetic field also offers an intrinsic shield against space radiation and can possibly be applied to assist in the propulsion system by directing the charged particle sources and thrust.”

[...] “If we take the power available in orbit to be the projected electrical power generated by a Project Prometheus source or a large solar power array, nearly 10 micrograms of antiprotons could be generated and stored per year. This represents a significant quantity of antimatter which could be used for very aggressive space propulsion and exploration. The concept is also quite appealing since additional antiprotons could be generated over the course of the trip during transit to further propel to vehicle. A much larger power source (GWe) could conceivably enable milligram class quantities of antiprotons to be generated. This level of antiproton generation is sufficient to propel small interstellar probes to a significant fraction of c.” (James Bickford, Op. Cit., p. 18 and 42.)

6. UNIPOLAR INDUCTION AND THE DISSYMMETRICAL FUNCTION OF THE UNIVERSE

One of the simplest, but most fundamental electromagnetic experiments in which both the behavior of electricity and magnetism can be tested for dissymmetry, is known as *unipolar induction*, which is also possibly the best physical shadow of the axiomatic difference between abiotic and biotic in the universe as a whole. The term *unipolar induction* was coined by Wilhelm Weber in an 1841 article of the same title, in which he identified the dissymmetrical process of a “molecular current of electromagnetic fluid,” following Ampère’s idea of electrical molecular currents. (See Andre Koch Torres Assis, Karl Heinrich Wiederkehr, and Gudrun Wolfschmidt, *Weber’s Planetary Model of the Atom*,

Tredition science, Nuncius Hamburgensis, 2011, p. 44.) The first experiment of *unipolar induction* is usually attributed to Faraday in 1832, but the problem with Faraday is that he approached the universe exclusively from the vantage point of visual sense perception.

The dissymmetrical hypothesis, here, comes from Ampère who discovered that electricity is a fluid which penetrates everything that exists by means of electromagnetic induction, and whose motion is harmonically ordered in accordance with the Keplerian principle of gravitation. Ampère's main question was why is the universe filled simultaneously with a double induction circular motion, in which one process is positive and moves clockwise while another process is negative and moves counterclockwise, within itself? What is the axiomatic nature of this chirality function of the universe? Ampère's question will be taken up shortly after by Pasteur who will consider that in the same way that left-handed molecules rotate polarized light to the left and right-handed molecules rotate polarized light to the right, electromagnetism is also a function of the dissymmetry of the universe. Near the end of his life, Pasteur made a direct reference to this process, when he wrote:

“The universe is a dissymmetric whole. I am inclined to think that life, as manifested to us, must be a function of the dissymmetry of the universe or of the consequences that follow in its train. The universe is dissymmetrical; for, placing before a mirror the group of bodies which compose the solar system, with their proper movements, we obtain in the mirror an image not superposable on the reality. Even the motion of solar light is dissymmetrical. A luminous ray never strikes in a straight line, and at rest, the leaf wherein organic matter is created by vegetable life. Terrestrial magnetism, the opposition which exists between the north and south poles of a magnet, the opposition presented to us by positive and negative electricity, are all the resultants of dissymmetric action and motions.’ (René Vallery-Radot, *Louis Pasteur, his life and labours*, D. Appleton and Company, New York, 1885, p. 30)

The “resultants of dissymmetric action” is what Pasteur was focussing his investigations on with respect to the difference between life and non-life, as Vernadsky will also emphasize. It is within that function that is reflected the intention of living processes in the universe. It is clear that for Pasteur, the secret to the difference between the abiotic and the biotic could be found in the electromagnetic nature of its molecular fluids. As his son-in-law, Vallery-Radot reported, Pasteur experimented with magnets, solenoids, and inversion processes of rotating heliostat mirrors that reflected sunlight on rotating plants clockwise and counterclockwise. His most daring idea of inversion, however, was his idea of introducing dissymmetry by inversion inside of a germ. As Pasteur put it: “When the attempt is made to introduce into living species primordial substances, inverse of those now existing, the great difficulty will be to master the *tendency (devenir)* proper to the species, a tendency which is potential in the germ of each of them. [M. Pasteur appears to use the word *devenir* as a substantive in a sense equivalent to the German *Werdende*. ed.] .”(René Vallery-Radot, Op. Cit, p. 31) Here, the translator misread the intention of Pasteur. It would have been better to translate the term “*devenir*” by “*becoming*,” and thus, maintain the orientation of time reversal. The idea of the “*proper becoming of the species*” is never going from A to B, but the inverse direction of the motion. Becoming is going coming from B to A, as if by a dissymmetrical mirror function that dominates the universe. Ironically, becoming should always be understood as coming from B.

The simplest example of this time reversal function of dissymmetry can also be found in what Ampère and Weber called unipolar induction. Unipolar induction is the most natural connection between electricity and magnetism, and its doubly-connected circular motion may be considered as the paradigm of the creative process of the universe as a whole. That is to say, a unipolar induction consists in generating an electric current through a conductor and a magnet in such a way that the conductor and the magnet can act on each other, and both be in relative rotary motion with respect to each other in a dissymmetrical manner. In fact, the chiral dissymmetrical motion of the electric charge acts at a right angle to the motion of the magnetic force as it generates and organizes one another into creating conditions in which man is able to use the same principle and increase the energy flux-density of the universe. This is the kind of motor that moves our galaxy and the millions of stars within it. Similarly, as Pasteur said about “molecular dissymmetry”: “We must invoke the action of solenoid or helix.” (René Valléry-Radot, *Op. Cit.*, p. 32.)



Figure 9. Demonstration of dissymmetry in unipolar induction with a D-cell alkaline battery, a ferromagnetic screw, a neodymium magnet, and a copper wire. By brushing the battery connected wire against the rim of the magnet, the current of the battery will create a torque on the disc magnet which will cause the magnet to rotate left-handedly or right-handedly provided it is attached to the positive or negative poles of a battery by means of a ferromagnetic screw. The same effect will occur by turning the magnet upside down.

Electromagnetism are the two partners working together as the two hands of God that continuously energize and hold the universe alive together, because the electrical field is able to improve itself by generating the power of the magnetic field, and the magnetic field is improved by increasing the power of the electrical field. It is the same idea as the Peace of Westphalia through which the universe appears to lose its power by improving the power of the other, which in turn, increases the energy flux-density of the universe. In other words, inversions are the favorite pathways of mental processes and of physical processes in the universe. Similarly, Pasteur has instructed us to take that pathway:

“I have been looking for spontaneous generation during twenty years without discovering it. No, I do not judge it impossible. But what allows you to make it the origin of life? You place matter before life, and you decide that matter has existed for all of eternity. How do you know

that the incessant progress of science will not compel scientists...to consider that life has existed during eternity and not matter? You pass from matter to life because your intelligence today...cannot conceive things otherwise. How do you know that in 10,000 years one will not consider it more likely that matter has emerged from life...?" (René Valléry-Radot, *Op. Cit.*, p. 396.)

This is the last nail in the coffin of those pragmatists who believe that the universe was built from the bottom up. So, let's look at the universal process of creativity from the standpoint of that Pasteur inversion, from the top down.

It has become a convention to understand that the charge of an electron, for example, is -1, while the charge of a proton is + 1. This is not merely an opposition, this is primarily chirality. Charges with the same sign repel each other, and charges with opposite signs attract one another in chirality. Coulomb's "law" qualifies this by establishing that the electrostatic force between two particles is proportional to their charges and is inversely proportional to the distance between them. That is also an effect of the dissymmetry of the universe. Remember that these forces are effects, not causes. Amazingly, these characteristics of electricity are the same as magnetism. But, why they act on each other in this dissymmetrical manner is the most important question to answer. What has to be discovered is the nature of their opposition. However, you cannot discover why this opposition exists until you apply the principle socially to your fellow man.

It is the Ampère and Weber notion of electrical molecular current and tension which is important to understand, here, because this notion permits one to understand how two charged particles of opposite signs can orbit around each other without interference and can also move in opposite directions inside of the same carrying conductor. What Ampère is referring to in the opposition between tension and current, is the same as between attraction and repulsion. It is this opposing reversibility, as in matter and antimatter, which is important to focus on, because it reflects chirality of living and thinking processes like no other universal physical process does. So, look in your mind and you shall find the way to go.

CONCLUSION

Finally, there remains a question that I am not yet able to answer: How can it be that the universe as a whole moves in two opposite directions at the same time, clockwise and anticlockwise, that a positive electrical charge corresponds to the North Pole of a rotating magnet in a clockwise motion, and a negative electrical charge corresponds to the counterclockwise function of the South Pole of the same rotating magnet? How does the universe know which side is up or which direction is left-handed?

Like electricity and magnetism, life and the discovery of ideas depend on similar creative dynamics that are not associated with a physical contact of pushing and pulling, but rather through dissymmetrical forces which, like a piece of amber and a loadstone, can act on something else over a distance, without touching, and in a continuous doubly-connected manner. What is the significance of this

mental telepathic process with respect to creativity in the universe? Pasteur would answer: "They are alive, because they are dissymmetrical like a good wine."

The idea is not to look for traces of life and cognition in the Cosmos, as if you were to find sperms or bottled ideas floating around in an empty space ocean without a shoreline. It is the reverse that must be done. It is not the human mind and living processes that must be located in the Cosmos; it is the Cosmos that must be located in the human mind and in living processes. In other words, acting from the top down means that you are looking at yourself from the outside-in, with the chirality of the universe as the compass of your mind. That is the key that unlocks the secret of the universe as Pasteur proved.



Figure 10. The 1871 public service flyer of Pasteur reads: **Give preference to restaurants that include wine in the price of meals. The AVERAGE HUMAN LIFE is 59 years for a water drinker, but 65 years for a WINE DRINKER. 87 % of centenarians are wine drinkers. Wine is the milk of old people. "Wine is the healthiest and most hygienic of all drinks." (Pasteur.)**

This is the reason why the pinch effect of an axiomatic change, and its effective results on the human mind, are always the most important measures of change by time reversal to be investigating, if you wish to understand increases in energy flux-density anywhere in the universe; because it is from your own mind that you can know anything else. Then, apply the general epistemological inversion hypothesis, and only then will you know yourself as you are also known by the universe.

CHEERS!