



A WORKING PAPER ON THE EPISTEMOLOGY OF GEOMAGNETO BIOLOGY

An experiment in Axiomatic Epistemology
by Pierre Beaudry, December 14, 2014



FOREWORD

Ernie Shapiro has raised the epistemological bar for me, one more time, by asking me to evaluate the book of Russian scientist, Aleksandr Petrovich Dubrov, *The Geomagnetic Field and Life* (1978), and by asking me similar unconventional questions with respect to the researches in the chirality of water by Dr. Philippa Wiggins of New Zealand and Nobel Prize Laureate, Dr. Luc Montagnier, of Hong Kong. The revolutionary aspect of inversion which takes place in such functional dissymmetry of living processes has piqued my curiosity and interest, and has led me to write this report on the question of inversion, because such a process represents the primary characteristic of axiomatic changes in the human mind. What this investigation represents, therefore, is the seeking of a proportional measure that should exist between the principle of life and the principle of cognition, as expressed by inversions of the geomagnetic field (GMF) and their effects on living processes.

The revolutionary concept that Dubrov developed in his book is based on the evidence that the geomagnetic field (GMF) of our planet is a crucial causal source of axiomatic changes in the evolution of the Biosphere as a whole, and that the form of such a causal process reflects, proportionately, a similar process of axiomatic changes in the discovery of principle of the human mind. That proportionality being established, then, following Dubrov's hypotheses, it becomes plausible that a higher hypothesis be

submitted whereby the implicate order as developed by David Bohm, that is to say, the ordering principle of Nicholas of Cusa's enfolding principle, or what the Chinese have called the Wu Chi Stance in Tai Chi, becomes a fundamental concept for understanding the relationship between the galaxy and the human mind as the locus of unity before any division into opposites; that is, the state of mind of the One before the Many.

This is the state of mind that the Chinese astronauts are going to rediscover in their continuing exploration of the Moon. When this happens, it will demonstrate that the creative process of the universe is both physically and mentally located within the framework of the homopolar electromagnetic field (HEMF) of the Galaxy. What is less clear, however, which will demand some special attention as to the intention of the causal process itself, is that an axiomatic change, whether physical or mental, is always proceeds by time inversion and is expressed by a dissymmetrical inversion; that is to say, by inversions that are proportional among three different processes; that is, by the cognitive, biochemical, and chemical characteristics of the universe.

Bearing that in mind, I have to warn the reader that this process of proportional dissymmetry is not merely expressed by chirality, that is, by the resulting features of left and right-handedness. The primary causal issue in dissymmetry is not chirality, but inversion. Everything must start from the end. That is why I must begin this report with this disclaimer, since it is with the intention of a final causality of purpose that everything gets started.

Therefore, I think it is best to know ahead of time and to start from this time reversal intention from the future, and look back from the top of that purpose down to the particulars. The method of inversion to be followed is going from the One to the Many as opposed to going from the Many to the One; that is to say, going from the top down as opposed to from the bottom up. In other words, this investigation into the axiomatics of epistemology intends to show that the whole is greater than the sum of its parts, but only when you think of it from the top down and from the future to the past by inversion.

As a matter of course, I think that Axiomatic Epistemology is the best means that the human mind has at his disposal to discover some answers in the triply-connected domains of physics, biology, and cognition, because it is only through the universal axiomatic principles of how the mind changes that you can know anything new coming from the future. Therefore, I must insist that the form of epistemological resonance I am looking for in this report is located in the same meaning that Chinese President, Xi Jinping gives to the concept of "inclusiveness" in the new economic order of the BRICS nations. This report has six sections:

1. A DIALOGUE WITH ERNIE SHAPIRO ON THE EPISTEMOLOGY OF DISSYMMETRY
 2. WHAT IS AN AXIOMATIC INVERSION FOR THE ADVANTAGE OF THE OTHER?
 3. THE INVERSION CHARACTERISTIC OF THE GEOMAGNETIC FIELD
 4. GEOMAGNETIC FIELD AND THE QUESTION OF FUNCTIONAL DISSYMMETRY
 5. HOW THE GEOMAGNETIC FIELD SOLICITS BIOSPHERIC RESPONSES
 6. MONTAGNIER'S DISCOVERY OF A NEW PROPERTY OF DNA
- CONCLUSION: HOMEOPATHIC MEMORY HYPOTHESIS

INTRODUCTION

“The bricks are merely assembled, but there will be no building until the confused phenomena conform to a single universal principle.”

Karl Friedrich Gauss

My question to you is: Are human minds natural epistemological cognilocators? To understand this question properly, cognilocation is not biolocation. It is the ability to apply the human mind to the geomagnetic field around the Galaxy for the purpose of making discoveries of principle within the Solar System as a whole. There are a lot of kooky people out there who are involved in a wrong form of biolocation, especially in Great Britain ([The British Society of Dowzers](#)); however, I know of no serious thinker who has investigated the epistemological implications of the human mind’s magnetic cognitive system with respect to the Galaxy. To me, this is one of the most urgent challenges to take up.

Most people don’t believe that human beings are capable of using their magnetocognitive system because it is not visible, or because too many charlatans have abused them with their so-called “biolocation” capabilities of rod-bending tricks. What I intend to do in this report has nothing to do with discovering some hidden treasure with spoon or rod-bending. I approach this geomagnetobiological field question from the vantage point of epistemology; that is, from the vantage point of knowledge as opposed to belief, and from the vantage point of Plato as opposed to Aristotle. My question is: how can the human mind realize that its power is greater than the Earth’s and even the Sun’s magnetic fields?

Does homopolar electromagnetism relate proportionately to the human mind in the same way that geomagnetobiology relates to all living processes? That’s my primary question. This question is far reaching, because it implies that the cycles of axiomatic changes in the human mind and in the magnetic field of the Galaxy are resonant with the cycles of the geomagnetic field (GMF) in the sense that Aleksandr Petrovich Dubrov developed the idea in his 1978 book, ***The Geomagnetic Field and Life***.

Dubrov’s book forces his reader to investigate circadian rhythms only to discover that the geomagnetic field of the Earth has a powerful control over the evolution of all living species, including human beings. However, my purpose, here, is not to investigate the physiological relationships between GMF and brain activity, but to investigate the epistemological correlation between the physical action of GMF and the ability that the human mind has in increasing his power of energy-flux-density.

1. A DIALOGUE WITH ERNIE SHAPIRO ON THE EPISTEMOLOGY OF DISSYMMETRY

New Jersey, Sunday, November 02, 2014

Hi Pierre,

Your report on Bohm resulted in me getting a lot of e-mails, especially from members in Europe. Chuck subsequently also sent it out to a lot of People.

The section where Wiggins discusses separation of the bioactive from the inactive forms of glucose and lysine is on page 9 of the linked article. Begin with the paragraph which says:

"Polyamide beads both in a column and as slurry were also used to separate optical isomers of glucose and amino acids." The two graphs on that page show that water was able to differentiate D from L glucose and even better, L from D lysine. There is more material on this topic in the attached article along the same line. If you want, I can send you the article DNA Waves and Water.

Ernie

Dear Dr. Montagnier and Dr. Vitiello:

I recently reread your article: DNA Waves and Water, because I am very impressed by the ability of water to regenerate complex molecular structures. In that connection, I recently read two articles by Dr. Phillippa Wiggins. One I am sending you as a link, and the other as an attachment. In both articles, she describes an experiment by which water can selectively concentrate the bioactive forms of lysine and glucose. I find this totally amazing. Has anyone confirmed these revolutionary findings? Might there be a cosmic influence which is itself chiral, just as you discovered a cosmic influence i.e. the Schumann waves?

According to Alexander Dubrov in his book Geomagnetic Field and Life, 1980, the geomagnetic field is chiral and has profound dissymmetric effects upon living things in both space and time... Is the DNA you have been working with chiral? Is the DNA which you have reconstituted chiral as well, and of the same chirality as the original? Might a morphic field be involved such as Rupert Sheldrake describes? Please e-mail me articles you have produced since the article DNA Waves and Water.

Ernest Schapiro, M.D.

[http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.](http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0001406&representation=PDF)

[1371%2Fjournal.pone.0001406&representation=PDF](http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0001406&representation=PDF)

Leesburg, Friday, November 14, 2014

Hi Ernie,

Thanks for the precisions on the Wiggins discovery. I can now begin to see where you are heading with this question of chirality. I think Montagnier is in the right direction and your reference to Alexander Dubrov speaks volume. I'm going to read his book. If I understand correctly, you are going galactic with this geomagnetobiology. I think you are right, that's the door to the future of science as a whole, because it begs the question: Are human beings true epistemological biolocators?

I don't know how to answer that question yet, but I am very intrigued by it, because I think that Montagnier is on the verge of a crucial new discovery of principle. I think it may pertain to the relationship between the creative human mind and the magnetic field. I caution, however, that what I mean by biolocation has nothing to do with the rod-bending practice known as dowsing. I take my meaning from the Great Soviet Encyclopedia (1979) which gives the following definition:

Biolocation: (from bio ... and the Latin loco I place, I set), the ability of an animal to determine its position in space (bio-orientation) or the position of an object in relation to itself (direction, distance). Biolocation is achieved by the perception of external signals by the body's surface or by special sense organs (vision, touch, smell, hearing, balance, and others). A distinction is made between direct (passive) biolocation, which is characteristic of most animals, and echolocation, by which is perceived the reflection of an acoustic, mechanical, electrical, or other signal sent into space by an animal and reflected by some object. The latter is characteristic of cetaceans (for example, dolphins), bats, and some other mammals. [N. P. NAUMOV, *The Great Soviet Encyclopedia*, 3rd Edition (1970-1979), 2010, The Gale Group, Inc. All rights reserved.]

This is an interesting definition when you also apply it loosely to the human mind, because it describes, without any ideological bias or any underlying assumptions of belief, the phenomenon of biolocation as being a signal perception that requires a sixth sense of magnetic directionality, which many animals have in relationship with the Galactic, Solar System, and the Earth's magnetic fields, and which the human mind has the power to access as amatterofmind. My hypothesis, therefore, does not intend to go beyond that loose definition of the term by including the human mind. In other words, my idea is to attempt to discover how the same so-called sixth sense can be applied to the idea of an epistemological biolocation with respect to the galaxy and the Universe as a whole,

Since every human being is born with an energy field, and society as a whole is commanded from the top down by the harmonic or disharmonic properties of such multiply connected fields, it is essential to discover how such a system of trans-sensory perception can be known and mastered for the benefit of mankind as a whole only through increases in energy-flux-density of their individual minds. This requires an investigation into the very nature of an axiomatic change.

Therefore, the question is not to convince yourself in believing what you see with your own eyes, but to convince yourself by discovering something with the certainty of your own mind, leaving divination out of it. Therefore, my question for Montagnier would be: Is there a universal medium

through which biolocation could be transmitted? Could water be such a medium and could mind be such a proportional higher medium? If we could properly address the question of the memory of water to this question of homopolar electromagnetism with respect to the creative human mind, would we not be looking at some new and higher ordering principle relating mind to matter? As Montagnier has shown: “Some bacterial and viral DNA sequences have been found to induce low frequency electromagnetic waves in high aqueous dilutions.” (L. Montagnier, J. Aissa, E. Del Giudice, C. Lavallee, A. Tedeschi, and G. Vitiello, [DNA Waves and Water](#), 5th International Workshop DICE2010, Journal of Physics: Conference Series 306 (2011) 012007, IOP Publishing.)

However, my question to you is: Am I correct in understanding that it is the DNA which produces the electromagnetic current and water which carries the electromagnetic signals (EMS) of the DNA at 7.83 Hz through that current as if within a sort of ether and that this process implies the proportionality of a time reversal related function of increase in energy-flux-density? Furthermore, doesn't Montagnier's experiment with [DNA Waves and Water](#), demonstrate that the process is anti-entropic? As the article stated: “In the case of liquid water, the CD [Coherence Domain] (whose size is 100nm according to Eq. (1)) includes an ensemble of almost free electrons which are able to accept externally supplied energy and transform it into coherent excitations (vortices) whose entropy is much lower than the entropy of the incoming energy. Consequently, water CDs could become dissipative structures in the sense of the thermodynamics of irreversible processes [12]-[14].” (Ibidem, p. 6)

The point that Montagnier made is that such a low Schumann frequency of about 7.83 Hz is present in higher organisms such as human beings and can be produced by their nervous systems as well as other Schumann modes such as lightnings within the boundary limits of the surface of the Earth and the ionosphere. Montagnier made the interesting observation that the Schumann resonance is not only appropriate for biological systems in which DNA resonates at the natural Earth electromagnetic wave level of 7.83 Hz, but that the em waves of the human mind are also of the same range. The point of interest for me is to figure out how this discovery of a new property of the DNA becomes coherent with the epistemological resonance of long waves of change in the human cycle of history?

What do you think?

Pierre

Leesburg Va. Friday, November 21, 2014

Hi Ernie,

Have you received my message of a week ago?

Pierre

New Jersey, Friday, November 21, 2014

Hi Pierre,

Yes. I received it. Did you find Dubrov's book? If not, I can copy it for you. I hope to raise these matters Sunday night on the 8 P.M. google Hangouts Basemen Team webcast. See link below. They have been discussing chirality and life as galactic phenomena. Your insight about water as a medium for such influences needs to be addressed. Take a look at Voeikov's article in one of the last few Twenty First Century issues. He shows how bicarbonate solutions emit high energy photons continually based on the non equilibrium nature of water, and how this process is acutely sensitive to the effects of eclipses.

My interest in this idea about water grew out of my interest in a medical question, i.e. how a disorder like diabetes can be considered simply a disorder of an interconnected set of reactions, i.e. a percussive matter, or must there be a higher cause? That led me to think of the water in the cell.

Montagnier's use of high dilutions is the same as homeopathic traditional practice going back 200 years. An important aspect of homeopathy is that the correct remedy relieves both the physical and the psychological ailment. This points to the quote you had from Bohm about how mind and body are subsumed by the implicate order. Might homeopathy operate on the level of the implicate order?

Ernie

<http://www.youtube.com/watch?v=VWpAbTKY-Ds&feature=youtu.be>

Leesburg VA, Saturday, November 22, 2014

Hi Ernie,

Yes, I got the Aleksandr Petrovich Dubrov's book on geomagnetobiology from the library and it appears to be quite far reaching in its epistemological implications. I am starting, now, a report on EPISTEMOLOGY OF GEOMAGNETO BIOLOGY in which I will also include some remarks on Montagnier. If you have anything to add to this subject, and I am sure you have some insights, you are welcome to send them to me and I will add our dialogue to the report like I we did previously on David Bohm's Implicate Order. A dialogue is always the best way to get to new ideas.

I am also more and more resolved into thinking that the universe as a whole is homeopathic in character, and that negative and positive polarities are the key to axiomatic changes that take place by inversion for mind, living matter, and abiotic matter as well. If you have any thoughts on this, let me know. Dubrov is absolutely right in saying that there is a correlation between changes in polarity of the Earth's magnetic field and great moments of extinction in the biosphere.

I have not yet seen anyone in the Basement crew discuss the "galactic phenomenon" of chirality. However, Jason did something nice last night with Pasteur, but I think the focus should be more on inversion rather than chirality. ([Friday Webcast: November 21, 2014.](#)) Why? Because it is the dissymmetrical resonance of the galactic magnetic field which determines the cycles of all living beings at low energy threshold in the biosphere. This is what Dubrov is getting at in his book, and if you have

any write up about anyone else on this question, please send it to me, or give me a precise reference where I can get it, otherwise I will get lost somewhere in nowhere-land.

Being able to go back to a precise source reference is the only way to do serious research. That's what my father used to tell us, when we were kids and took a car ride on Sunday afternoons to go on a "Knowhere."

Keep lifting every molecule, the principle is staring at you.

Pierre

New Jersey, Sunday, November 23, 2014 11:57 PM

Go to Google hangouts with Basement. My comments are at 1.00 hours.

<https://www.youtube.com/watch?v=2FegQFMnAiE&feature=youtu.be>

Leesburg, VA, November 25, 2014

Hi Ernie,

I watched the video, but there is a double voicing which makes it virtually impossible to identify what you said. Can you email me some of your notes? I was able to pick out what you were saying about water being sensitive to dissymmetrical characteristics and I thought that, maybe water has another form besides liquid, ice, and vapor, which is in some sort of plasma form. Does that make sense?

Thanks.

Pierre

New Jersey, Wednesday, November 26, 2014

Hi Pierre:

I spoke from notes. I can transcribe them for you over Thanksgiving. I brought up the importance of Bohm's implicate order for dealing with Montagnier's water memory. I also said that Bohm might be seen as an elaboration of Cusa's method. Ben had said there has been no one since Cusa except Lyn that represents that method. I think we might consider Lyn's paper Vernadsky and Dirichlet's Principle, where he finally after many years of uncertainty decides and demonstrates that Vernadsky was indeed a follower of Riemann. We need to do the equivalent with Bohm and Cusa, and it will take some work.

I think an important question to answer is: Why would it necessarily be the case that the microcosm on earth, the living and even in some cases the apparently non-living, is in harmonic interaction with far away parts of the cosmos? Does this follow from Cusa and Bohm? Also is it necessarily part of Vernadsky's view? How about Kepler?

In Book IV of the Harmonies he says that constellations and their conjunctions affect the weather.

I got some articles from Dr. Abraham Liboff, who recently co authored a paper with Montagnier and the Italian team of the late doctors Preparata and Del Giudice.

https://us-mg6.mail.yahoo.com/neo/b/message?search=1&s=liboff&startMid=0&sort=date&order=down&mid=1_0_ACbsw0MAAAR%2FVGTv8QRwuG7cgyw&fid=Inbox

Ernie

Leesburg VA, November 26, 2014

Hi Ernie,

No need to transcribe your notes. I got a sufficient picture over the cross voice. I was looking for a specific insight, but you are like me, all you have is questions.

I am currently working on Dubrov's book. It's fascinating, especially his notion of inversion with the GMF system. I am more and more convinced that "inversions" are the key to dissymmetry. If you have anything else on this question of inversion and dissymmetry, I would appreciate some links.

I think that inversion is the heart of this whole business, because that is the most important aspect of an axiomatic change. Do you have a classification of biological objects that are exclusively left-handed and right-handed, or both, and which would be subject to extinction during an inversion of polarity of the GMF? How would the human mind react to such an event?

Pierre

P. S. I cannot open the link for Liboff you just sent me.

New Jersey, November 28, 2014

Hi Pierre:

I am rereading another book by Dubrov: *Symmetry of Biorhythms and Reactivity*, 1987. He devotes a lot of study to dissymmetry in time, which I think strongly fits your idea of inversion. I.e. the time course of a biorhythmic cycle in one individual is the mirror image of that for another. He feels that a lot of what passes for genetic variation among individuals of a species is due to their D, L, or LDS character. He calls this functional and dynamic as opposed to morphological symmetry. He asserts that dissymmetry is a deeper biological principle than what is expressed in biochemistry. In this book he also refers to Vernadsky, unlike the one you are reading.

In the second Google Hangout, Renée Sigerson spoke about musical inversion as expressing dissymmetry.

Circadian rhythm is a wonderful area of medicine. I suspect all systemic diseases involve the circadian rhythm. This undoubtedly is coherent with the idea that the water in the tissue is of a higher power than the biochemical processes.

As regards your question of whether there are biological objects exclusively left or right handed which would be subject to extinction during an inversion of the earth's polarity inversion, Dubrov thinks that in every species that there are all three forms: L,D, and LDS, which would seem to indicate one at least could survive. However I think in the Vernadsky article I just forwarded to you, he cited a biologist who noted that all the shells of a species were in the same chirality. In his chapter on the application of his work to medicine, Dubrov has the novel idea that when bacteria become drug resistant, it may not always be a genetic change, but rather a selection of the microbes with a particular chiral pattern.

Regarding your question of how humans will react to an inversion of the earth's polarity, I suspect the experiment has been done, but I don't recall reading it.

Your reference to a low energy threshold in relation to the galactic magnetic field might relate to what Liboff first proposed in 1985: ionic cyclotron resonance. The ion with a particular charge to mass ratio can resonate with a particular pulsating magnetic field and secondarily affect the electrons in a coherence domain. The experiments he is doing with Montagnier support this interpretation based on ICR.

Could you explain what you mean by saying the universe as a whole is homeopathic? Also how would inversion of polarities go with axiomatic change?

Re your question about DNA being the source of waves in Montagnier's experiments, he says that the DNA can emit the low frequency waves and also can induce water to emit them, too. If DNA is in the water for awhile, you can then dilute the water so many times that the DNA is no longer present, but nevertheless, that diluted water can itself begin to emit those same waves and induce reconstitution of the DNA. (Provided an external or artificial source of Schumann type waves is present.)

I looked up a book by Fritz Popp where he demonstrates that DNA also emits biophotons which are coherent and of high frequency, much higher than Montagnier's.

I am continuing to read Bohm, and rereading Cusa's D.I. We are doing a reading of Cusa every Wednesday. I think that the phenomena Montagnier describes are mind like and represent the implicate order as a kind of memory. I'm not sure about the case of the ability of cosmic factors to influence the microcosm constitutes entanglement, itself an expression of the implicate order. I may ask Hiley or David Peat for their view.

Regarding your question of whether water has a plasma like state, I think that both the Preparata-Del Giudice-Liboff and Wiggins show water exists in two different states simultaneously. One group goes at it via QM, while she does it via thermodynamics. You have low density and high density water with very different chemical and physical properties. Wiggins' articles are worth struggling with.

The mechanisms she postulates are subtle, but I think she really knows what she is talking about. I read a more general book which I think addresses these questions: Mae-Wan Ho's Living Rainbow Water. She got me onto Wiggins. I don't think the plasma state of water is relevant to biology. LDW and HDW are both liquids.

Ernie

Leesburg, VA, Friday November 28, 2014

Hi Ernie,

I have added this correspondence to my next report and I appreciate very much all of the answers to my questions. They have helped me a lot.

In answer to your own question concerning homeopathy in the universe, I am using the medical term more broadly and loosely to include the hypothesis whereby the principles of the physical universe are the same as the principles for developing the human mind, and that the means of developing one may be also help develop the other.

As for the question of inversion, I look for dissymmetrical reciprocity. And the way I found solutions to problems relating the human mind to the galaxy is by way of axiomatic epistemology, which is by relating both mind and galaxy to matters of classical artistic composition. For example, I formulate your question like this: How can an inversion of polarities in the geomagnetic field of the Galaxy be proportional to an inversion of axiomatic change in the human mind? And, to me, the answer is by music. The most obvious answer can be found in the personal/universal axiomatic change that Beethoven made when he composed his so-called "Moonlight Sonata." Here is how I wrote the second section of my next report on EPISTEMOLOGY OF GEOMAGNETOBIOLOGY:

Pierre

Leesburg, VA, Wednesday, December 10, 2014

Hi Ernie,

I got your five reports on ION CYCLOTRON RESONANCE by Liboff, today.

I am not sure I understand the full implications of this work, but it seems fascinating. Unless the author is able to articulate the underlying concept for the benefit of the reader, I generally have a problem with these kinds of scientific reports because they dissect too much and the key concept ends up being drowned in the details. So, I guess my function is to look for the idea that makes Liboff tick.

If my hunch is right, this ION CYCLOTRON business is related to the anomaly of the coronal heating of the Sun in which the solar winds stream out of the Sun in a paradoxical manner. Instead of slowing down and cooling, they go into an inversion by accelerating and heating up. That's my kind of puzzle. The point is to discover how heating is caused by increasing energy-flux-density.

I will work through them and let you know.

Thanks.

Pierre

New Jersey, Saturday, December 13, 2014

Hi Dr. Liboff:

My associate Pierre Beaudry and I are very interested in your articles, especially the implication that there are cosmic factors which interact with the microcosm on earth. Would you be so kind as to email me your article *Weak Field ELF Magnetic Interactions: Implication for Biological Change during Paleomagnetic Reversals*, *Electromagnetic Biology and Medicine*. 2013;32(4), 442-447. In his book, *The Geomagnetic Field and Life*, Alexander Dubrov takes up the effects of paleomagnetic reversals on evolution. There are many examples of such cosmic influences and we are looking for a general principle underlying these interactions. Why in fact should it be the case that the very large and the very small should be in harmony? Do some of these cases qualify as quantum entanglement? I have been reading David Bohm because he has some provoking ideas about quantum theory. He suggests that the chemical bond can't be classically accounted for, i.e. it is a quantum effect. He is seeking a physical as opposed to a mathematically formal explanation in his book *The Undivided Universe* where he discusses this.

Have you seen articles by Dr. Philippa Wiggins in New Zealand including "Life Depends upon Two Kinds of Water". In this article on the subtle oscillation between LDW and HDW and its crucial role in biology, she devotes a section to how LDW under suitable arrangements can selectively take up D glucose from a racemic mixture, and L lysine from a racemic mixture with D lysine. I do not know whether anyone has confirmed this astonishing result. If it can be confirmed, it suggests that there is some dissymmetric cosmic factor involved whose effect is mediated by water, if one accepts Pierre Curie's idea that whenever one sees a dissymmetric effect, there must be a corresponding dissymmetric cause. I wrote to Dr. Montagnier for his view about this but never heard back. I find it very striking that Dr. Wiggins approaches water entirely from the standpoint of thermodynamics, whereas the Italian group including also you and Dr. Montagnier approach it from the standpoint of quantum theory. It seems to me that the two approaches are complementary.

I am a retired M.D. with training in chemical physics, so I have broad interest in science. I ran across Dubrov's work in preparing an article on biological transmutations. Dubrov in his book proposed that these reactions were made possible by the dissymmetry of the geomagnetic field. I still don't know whether he is correct.

Best wishes,

Ernest Schapiro, M.D. Saturday

Rochester Hills, MI, Saturday, December 13, 2014

Dear Dr. Schapiro

Thank you for your note.

I attach a copy of the article you requested along with some of my other recent work.

As a (retired) physics professor I certainly agree with your assessment of Bohm's work. I confess to ignorance concerning Wiggins, but shall make every attempt to learn more about her findings.

Among the people I currently interact with, there is great interest in water, and as you say it is being examined both from a chemical perspective as well as quantum.

In fairness to your perspective I am less motivated by cosmic factors than by the possibility that life is best explained in electromagnetic terms, not the biochemical array presented in modern medicine. It is not so much that Pasteur Watson and Crick are wrong but rather that there may be something simpler.

Please stay in touch.

Abe

A R Liboff

Leesburg VA, Saturday, December 13, 2014

Hi Ernie,

Right on time. I was about to send out my report when I got your email and your exchange with Dr. Liboff. I am very happy he answered right away.

I will study closely the emails you sent me from him, especially the one on *Weak Field ELF Magnetic Interactions: Implication for Biological Change during Paleomagnetic Reversals* and I will let you know what I think. I am very happy to hear Liboff say that he gives priority to electromagnetism over biochemistry. That's Lydian music to my ears.

Send him a copy of my report when you get it. It would be good to know what he thinks of epistemological axiom busting.

Pierre

2. WHAT IS AN AXIOMATIC INVERSION FOR THE ADVANTAGE OF THE OTHER?

The inversion for the advantage of the other is the right question to investigate in this case. Such a higher form of epistemological cognilocation might also be able to demonstrate how the ancient Chinese practice of *Tai Chi Chuan* relates to geomagnetobiology and also demonstrate, scientifically, that this Chinese form of psychophysical practice of concentration is related to the this epistemological inquiry. This is to emphasize that the present world strategic situation between China and the United states represents a typical **TAI CHI MOMENT OF INFLECTION** within the new paradigm. As LPAC reported:

“China: Using Tai Chi to Bring the U.S. into the New Paradigm

“Nov. 19, 2014 (EIRNS)--Senior Editor Ding Gang of *The Global Times*, an official Chinese government paper, analyzes, today, China's response to Obama's anti-China ‘Pivot’ to Asia, and how to bring the U.S. into China's new paradigm for Asian development. The proper metaphor for the process, he says, is ‘tai chi, in which one has to conquer the unyielding with the yielding.’

“Ding says that the Pivot is based on instilling in China's neighbors a ‘concern about the rise of China and disputes stemming from history,’ but notes that over the past year,’ China has been gradually pushing Washington's ‘pivot to Asia’ to the margins of the region with a sophisticated portfolio of moves and the flexible employment of economic power,’ pointing to the huge funds and projects initiated by China through the New Silk Road process, the AIIB, and the FTAAP.

“But, he says, ‘China doesn't intend to strike the U.S. down, but instead to avoid its spearhead and rebuild the new order that serves the interests of Asian countries with China's own strength as per its strategic conception. It meanwhile guides the U.S. to serve as a constructive participant of the new order.’ [RON, MOB]”



Figure 1 THE AMERICAN TAI CHI CHUAN ‘WARD OFF’ AGAINST THE BUSH LEAGUE. William Wertz, Helga Zepp LaRouche, Gerry Rose, and Lyndon LaRouche. (*Thanksgiving*, Thursday November 27, 2014)

Although Xi Jinping never explicitly used the terms “*advantage of the other*” in his speeches, his intention has always been to move in that direction with his “*win-win*” policy. It is important to make the difference between the two concepts, here, because there is an axiomatic difference between the two. The “*advantage of the other*” is the quality of mind that Leibniz had found in the Chinese Emperor, Kangxi (1654-1722). The only other time I have found the use of the Westphalian expression of the “*advantage of the other*” in a Chinese speech was a year ago at the Georgia Carter Center when Chinese Ambassador to the United States, Cui Tiankai said:

“The win-win mentality also means that we should always try to see benefits from the success of the other and never attempt to take advantage of the other's problems. A stronger US economy would be something very much wanted in China, and stability and prosperity in China should also be good news for the United States. Likewise in the area of security, if we could work together for common security and cooperative security, we will have better security situation for both. If we try to play a zero-sum game or if we try to seek absolute security at the expense of security concerns of the other side, we will both end up in less security.” ([Remarks by Ambassador Cui Tiankai at the Carter Center Forum on China-US Relations](#), November 10, 2013, Atlanta Georgia.)



This is, explicitly, the mutual benefit policy, that the Chinese leadership has adopted openly and sincerely in their foreign policy, at least, since Xi Jinping has been in power. On the other hand, the Westphalian “*advantage of the other*” is solely for the purpose of making the other a better person than I am. This is the intention of the father who sacrifices himself for his children with the intention of making them better than he is. In other words, the inversion implies that the benefit is solely and exclusively for the future of the other and not for one’s self. This is the conception that is embodied in the Chinese “[Jade Rabbit Yutu principle](#),” as exemplified by the current Chinese Moon industrialization program.

Figure 2 Rabbit in the Moon making the elixir of immortality. From an 18-century Chinese imperial robe embroidery.

As the story of the rabbit in the Moon goes:

“In the Buddhist story “Śaśajātaka” ([Jataka Tales: no.316](#)), one of the Jataka Tales, a monkey, an otter, a jackal, and a rabbit resolved to practice charity on the Uposatha, believing a demonstration of great virtue would earn a great reward.

“When an old man begged for food, the monkey gathered fruits from the trees and the otter collected dead fish from the river bank, while the jackal wrongfully pilfered a lizard and a pot of milk-curd. The rabbit, who knew only how to gather grass, instead offered its own body, throwing itself into a fire the man had built. The rabbit, however, was not burnt. The old man revealed himself to be Śakra, and touched by the rabbit’s virtue, drew the likeness of the rabbit on the moon for all to see. It is said the lunar image is still draped in the smoke that rose when the rabbit cast itself into the fire.” ([Jade Rabbit](#).)

Now, ask yourself: how can an inversion of polarities in the geomagnetic field of the Earth be proportional to a similar *Jade Rabbit inversion* of axiomatic change in the human mind? Unless the reader has lived through such an axiomatic change in his own mind, this question is impossible to answer and this section of the report may not make any sense to him at all. This is the axiomatic change that is forcing humanity to change, today with the BRICS, and this is the paradigm shift that must be successful, if humanity is to survive. In answering this question more fully, however, I must relate this personal/universal axiomatic change process to what Beethoven was forced to make, when he composed his so-called “Moonlight Sonata.”

I refer you, more specifically, to the report I wrote in 2011 on [THE TRUTH ABOUT BEETHOVEN'S SO-CALLED "MOONLIGHT SONATA"](#). The point to understand about that question is that the common axiomatic ground which relates the creative powers of the human mind and the creative powers of the Galaxy lie in classical artistic composition, and more specifically in J. S. Bach's discovery of the principle of change in his *Twenty-four Preludes and Fugues*.



Figure 3 Beethoven's *Piano Sonata No. 14, Opus 27*, Third movement's density of axiomatic singularities, measures 166-167.

What happened in Beethoven's axiomatic change of 1801 is the advent of a true existential crisis that changed his life and the life of mankind as a whole, forever; that is, by transforming the excruciating moment of passing from the domain of sense perception to the domain of creative cognition. This is the most profound experiment that every human being should live through, generally more than once, during an entire lifetime. In Beethoven's case, it took place in the realization that he was becoming completely deaf and that he could no longer become the public performer that he had always wished to become. That axiomatic moment was such a tragic moment for him that he even contemplated suicide.

This is the idea that underlies the *Piano Sonata Quasi Una Fantasia No. 14, Opus 27* as a process of inversion from an individual tragic situation into a universal sublime resolution; that is, of a process that goes from the heart wrenching pulsation of a tragic state, to the depth of despair centered on the little me, to the sublime solution of a discovery of principle for the benefit of all of mankind, which is expressed in the joy of a self-developing victory over littleness. In other words, the Process of the *Piano Sonata Opus 27* has nothing to do with moonbeams over Lake Lucerne in Switzerland. Beethoven's self-developing solution of change was based on the same self-developing Lydian cyclical series of three clusters of minor thirds that Bach discovered whereby **C-Eb-F#-A** generates **C#-E-G-Bb**, which generates **D-F-Ab-B**, which in turn generates **C-Eb-F#-A**. See my report on [LYDIAN SINGULARITIES OF GALACTIC THINKING](#)

The sustained heartthrobs of the first movement of **Opus 27** mark the rhythmic palpitation that Beethoven's mind was going through in his attempt to solve the dissonances of a great moment of crisis in which his future was in question. However, what is truly interesting is how such dissonances were resolved through a series of high density of Lydian intervals introduced calmly, and with total control, in the first movement, but becoming resolved tumultuously in the explosive last section of the third

movement of the Sonata. See **Figure 3**. These are the Lydian measures of change that Beethoven fought with and used to solve the musical dissonances of his lamentation over the increase of his throbbing deafness. The three different sets of Lydian intervals of the well-tempered system represent for me the same dissymmetrical reciprocity as Ampere and Weber expressed in electrodynamics.

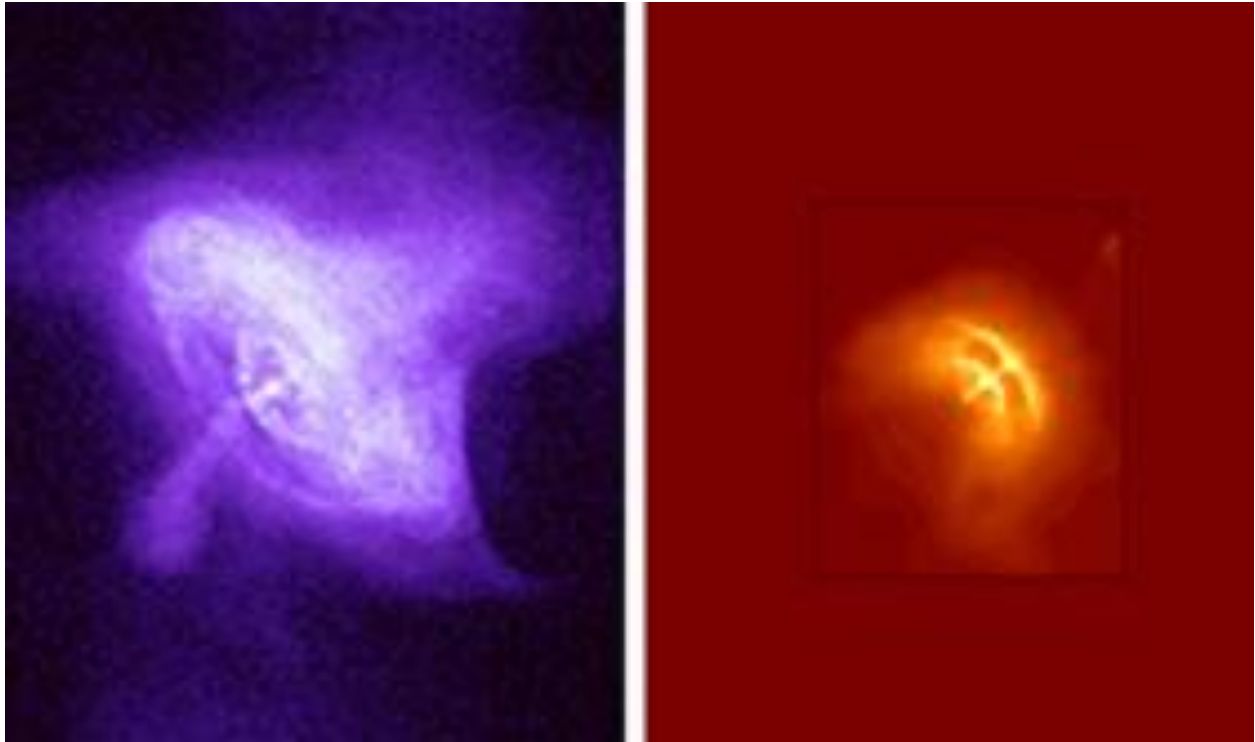
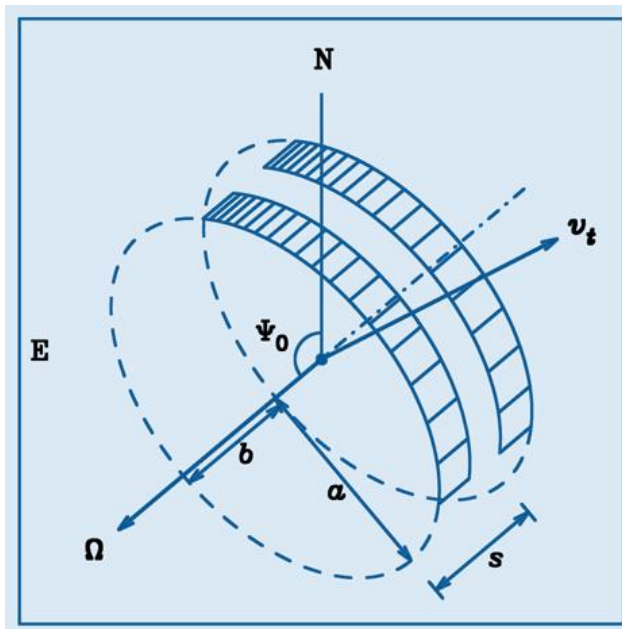


Figure 4 The singularity of the Crab Nebula and the Vela Pulsar from the Chandra X-ray Observatory. The high density of singularities of the Homopolar pulsar is proportional to the inversion of an axiomatic change in the human mind. (NASA) <http://chandra.harvard.edu/chronicle/0201/vela.html>

What the reader should focus on, here, is how the general homopolar electromagnetic field (HEMF) of the Galaxy creates pulsars in a similar manner as Beethoven's use of the Lydian dissonant intervals in classical artistic composition. **Figure 4** shows how the mere shadows of the Crab Nebula and of the Vela Pulsar hide from sight the underlying X-ray image of a Homopolar Motor which has a magnetic field rotating at right angle to an electrical field. This process is generated by a triply-connected principle of motion of the human mind that makes our Galaxy Spin, Torque, and Precess all at the same time, as can be represented crudely by the triple motion of a gyroscope.

As the Chandra Chronicles of Harvard University presented in 2001 during their original discovery of the Crab Nebula and the Vela Pulsar, such hidden galactic structures as X-ray imaging reflect what our sense perception cannot perceive, that is, an underlying process of generating increases in energy-flux-density inside of large galactic bodies whose transformation resembles the process of how a new discovery of principle generates increases in energy-flux-density in the individual human mind. As the Harvard report stated:

“A magnetized, rapidly rotating neutron star is an extremely efficient generator of voltages a million times greater than those of lightning bolts. These voltages create a blizzard of electrons and anti-matter electrons, or positrons.



“Computer simulations show that magnetic spirals created near the poles of a neutron star can focus the flow and produce jets. Particles near the equator will be flung outward at near the speed of light by electromagnetic-centrifugal forces. As this wind of particles streams away from the pulsar, it builds up a magnetized cloud of high-energy particles that extends over several light years. These particles spiral around the magnetic field lines and radiate by the synchrotron process to produce the observed pulsar wind nebula.” ([Tracing the Structure of Cosmic Power Grids](#), May 29, 2001)

Figure 5 “An idealized geometry for the Vela X-ray image. The two bright arcs are assumed to lie on the front surface of the equatorial wind. The spin axis (Ω) and the direction of motion of the pulsar (v) are shown, along with the axes of the projected ellipses (a and b), the separation of the rings (s) and the angle between the spin axis and north (Ψ).” (D. Helfand et al. 2001, *Astrophys. J.*)

When it dies, our Sun is not expected to explode into a supernova, but rather to expand into a red giant, and then collapse into a white dwarf. That process is expected to begin in about 7 billion years from now. However, when a star that is 10 times larger than our Sun dies, it explodes completely and becomes transformed into a supernova. And, when a supernova star explodes into a pulsar wind nebula, the forces involved can harness the energy of thousands of suns as the wind nebulas go into inversions of physical-space-time and generate a powerful increase in energy-flux-density. As the Harvard paper explained:

“The Crab and Vela pulsar wind nebulas both show a swept-back shape that resembles a comet. This structure is thought to be due to the proper motion of the neutron star as it moves through space at speeds of a few hundred thousand kilometers per hour. This may seem fast, but it is rather slow compared to many other pulsars. The motion of pulsars is thought to be due to kicks given by an unbalanced explosion process that occurs when a neutron star is created.

Helfand and colleagues speculate that the slower motion of the Crab and Vela neutron stars is connected to the rapid rotation of both these objects. In that event the "natal kicks" might have been averaged out to yield a low velocity along the axis of rotation. Whatever the cause, as the Crab and Vela neutron stars glide through interstellar space, they provide us with an awesome spectacle of power and light. ([Tracing the Structure of Cosmic Power Grids](#), May 29, 2001)

The last supernova to be observed from inside of the Milky Way had been identified by Johannes Kepler in 1604. Kepler's Star became known as Kepler's supernova SN 1604.

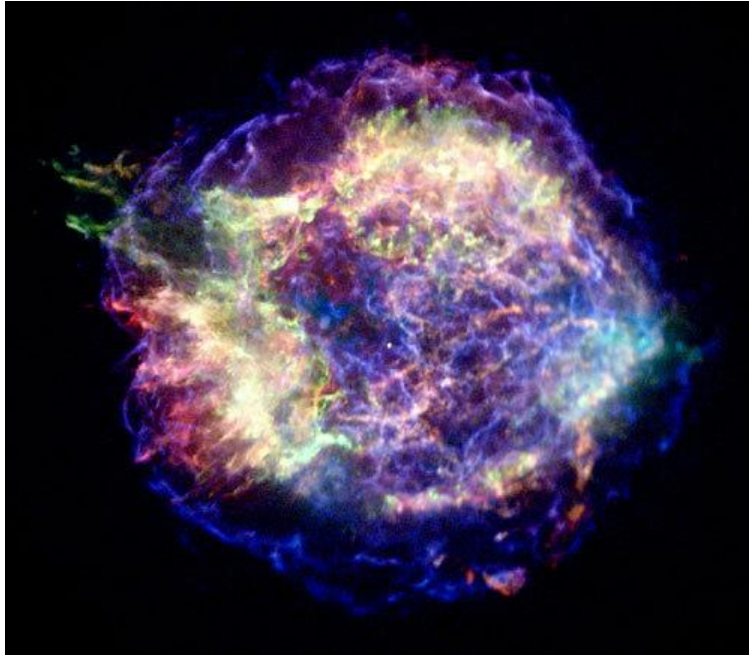


Figure 6 Kepler's supernova, SN 1604. "This combined image -- from NASA's Spitzer Space Telescope, Hubble Space Telescope, and the Chandra X-ray Observatory -- unveils a bubble-shaped shroud of gas and dust that is 14 light-years wide and is expanding at 4 million miles per hour (2,000 kilometers per second). Observations from each telescope highlight distinct features of the supernova remnant, a fast-moving shell of iron-rich material from the exploded star, surrounded by an expanding shock wave that is sweeping up interstellar gas and dust."

http://www.nasa.gov/multimedia/image_gallery/image_feature_219.html

The most fascinating aspect of this picture of Kepler's supernova (**Figure 6**) is that its composition is made up of three different observations. The triply-connected composition of X-ray, Infrared, and Optical telescopes reflects a complex situation of Plato's Cave which begs the Keplerian scientific method of the vicarious hypothesis.

3. THE INVERSION CHARACTERISTIC OF THE GEOMAGNETIC FIELD

Thus, on the subject of how an inversion of polarities expresses an axiomatic change, you have to look in your mind, first, and not in any of the physical geomagnetic inversions, per se. First, locate, after the fact, the paradoxical situation your mind was in before you made a discovery of principle. There was no way to know what the new principle was going to be, because such a change did not appear to make any sense. You were in an impossible situation and nothing on the horizon of your mind made sense except continuing to indulge in what was about to destroy you without your knowing it. The reason why the situation was impossible was because you were convinced that a solution could only come from the bottom up.

However, when you decided to turn the situation around and started looking at your impossible situation from the top down, the solution to the state of crisis began to take shape. All you needed to discover was the One of the Many. However, that solution could only come after you had willfully decided to go into such a search by inversion. It is that inversion that did it, not the content of the search. Therefore, it was only after such an inversion had taken place that you realized how everything you knew before had been changed, and the old belief structure that was holding you back was no longer there. The same thing happens when general extinctions of living species take place in the Biosphere. But, you can only infer that after the fact, that is, after a new axiomatic change has taken place from the top down. And, the only top down event that could explain such a mass extinction of living beings had to be the inversion of polarities of the GMF, because that is the only global event which took place on Earth from the top down.

That is the most important common feature between GMF and the human mind: they both develop through dissymmetrical axiomatic inversions. This, to me is quite a revelation, because it brings together the creative process of the mind and the creative process of the universe very neatly into proportionality, together. Note that I did not use the term “equation.” For our purpose, here, the most significant aspect of the GMF is its reversibility through 180 degrees during various geological epochs of the Earth’s evolution. According to Dubrov:

“The precise causes of geomagnetic reversals, as of the GMF itself, have not been determined, but the generally accepted theory at present is that of the geomagnetic dynamo, developed by Bullard, Runcorn, Rikitake, and Braginskii and based on eddy motions of self-induction currents originating in the Earth’s core (651). Other hypotheses regarding the reasons for reversals have been advanced, particularly the effect of cosmic matter on this process (554), changes in the period or rotation of the earth around the center of our Galaxy (300, 882), and changes in the rate of the earth’s axial rotation (225).” (Aleksandr Petrovich Dubrov, *The Geomagnetic Field and Life, Geomagnetobiology*, Plenum Press, New York, 1978, p. 13)

[Dubrov’s references are: (225) Yu. I. Kats and A. I. Bereznyakov, *Geomagnetic reversals: rotational causation and correlation with geological processes and the evolution of organisms*, in *The Cosmos and the Evolution of Organisms*, Paleontologicheskii Inst. AN SSSR, Moscow (1974), pp. 199-216. (300) N. Ya. Kunin and N. M. Sardonnikov, *Cyclical variation of the magnetic field and the earth’s climate in the Phanerozoic*, in: *The Cosmos and the Evolution of Organisms*, Paleontologicheskii Inst., AN SSSR, Moscow (1974), pp. 61-82. (554) L. I. Sverlova, *Effect of magnetic reversals on evolution of organic world*, in: *The Cosmos and the Evolution of Organisms*, Paleontologicheskii Institut AN SSSR, Moscow (1974), pp. 340-342. (651) B. M. Yanovskii, *Terrestrial Magnetism*, Leningrad State University (1964). (882) C. B. Hartfield and M. J. Camp, *Mass extinctions correlated with galactic events*, *Geol. Soc. Am. Bu.* 81, 911-914 (1970).]

As physicist E. N. Parker confirmed in 1969: “Studies of fossil magnetism (Runcorn 1955; Wilson, 1966, 1967; Bullard 1968) show that the magnetic field of Earth is generally fairly steady, with about its present strength of ½ gauss, for long periods of time, $10^4 - 10^7$ years, whereupon the field reverses abruptly, taking up the opposite sense and remaining steady again for a long period of time.” (E.

N. Parker, [*The Occasional Reversal of the Geomagnetic Field*](#), The Astrophysical Journal, Vol. 158, University of Chicago, November 1969, p. 815.)

Parker hypothesized that the EMF inversion was caused by the fluctuation in the distribution of the cyclonic convective cells inside of the plasma core of the Earth whose toroidal field becomes twisted into loops which coalesce to generate a poloidal field where both motions form a “generative dynamo” that is determined by a third longer galactic precessional motion. Parker added: “Our calculations demonstrate that a sufficient dearth of cyclonic motions below latitude 26 degree leads to a reversal of first the toroidal field and then the poloidal field. This is the simplest fluctuation we can find which produces reversal. Hence we argue that it is the most likely cause of the reversals.” (Parker, p. 817) This is also what Plasma physicist, Winston Bostick, had used to demonstrate the electromagnetic *homopolar process* within a laboratory inversion of vortex filaments engaged in opposing motions between rotational “kinetic energy density and magnetic energy density.” (See the inversion of the Theta-Pinch effect in my report on [THE PLASMA UNIVERSE IS A MATTER OF MIND](#))

On the other hand, Dubrov suggests that the reasons for such self-inducing causality can be found in the effect of galactic cosmic matter, the variations of the Earth’s periodicity with respect to the center of the galaxy, and the changes in the axial rotations of precession. The point is that the precession motion is the most fundamental galactic motion of this triply-connected Spin, Torque, and Precession motion. Although these are mere shadows of the causal action process, they are very revealing. The best part is that, ironically, this galactic idea of self-inducing causality is entirely coherent with the process of inversion found in axiomatic changes inside of the human mind. See my report: [HOW AND WHY THE MIND WORKS BY INVERSION](#)

Indeed, paleomagnetic data show that the cycles of such inversions have been established for the last 600 million years. The most exciting feature of this cycle of GMF inversions is that it corresponds to the evolutionary catastrophes of biological extinctions and renaissances of a multitude of new species of life throughout the Biosphere. However, before discussing this question of biological extinction cycles, let’s investigate first an interesting epistemological implication of the GMF action on life.

The question, here, is not the simultaneity of physical and mental events, but the nature of the axiomatically dissymmetrical similarities between the two. The same question of epistemological similar dissymmetry should also apply to the medical applications of Ion Cyclotron Resonance (ICR) in medicine. [Notably, see A. R. Liboff, *Weak-field ELF magnetic interactions: Implications for biological change during paleomagnetic reversals.*]

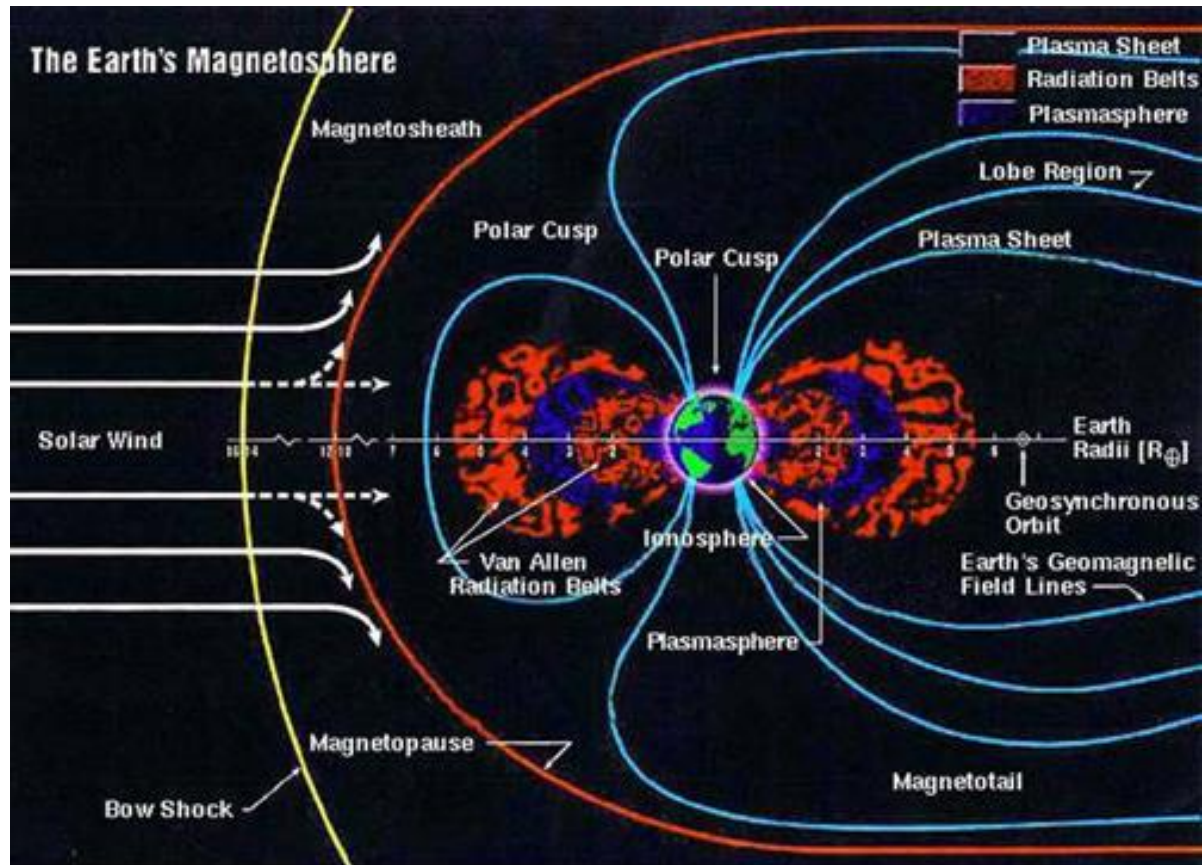


Figure 7 The Magnetosphere of the Earth.

4. GEOMAGNETIC FIELD AND THE QUESTION OF FUNCTIONAL DISSYMMETRY

One of the most important aspects of the question of dissymmetry since Pasteur has been the discovery of reversibility in living processes, that is, of transformations from, right-handedness (D), to left-handedness (L), or intermediate (DL) which led Dubrov to establish the law of properties of bioenantiomorphs. According to Dubrov, GMF is the fundamental causal factor in the determination of symmetry or dissymmetry in the universe through rhythmicity in the biosphere.

During a period of inversion of the GMF, the process may accelerate or retard the individual development, thus strengthen or weaken the physiological properties of animals. The examples that P. V. Vasilik gave is the case of the duration of the breeding season. If the time for breeding is reduced, the animal species may become extinct. For example, the wave of extinction that took place with the reversal of 12,400 years ago, led to the extinction of animals during the period of 12,000 to 10,000 BC. Dubrov reported that additionally, several types of “functional dissymmetry” may also have caused the extinction. Dubrov reported:

“In our opinion, however, there may be more general mechanisms by which the GMF acts and leads to the extinction and appearance of animal plant species. We attribute these mechanisms to the presence in organisms of various types of functional dissymmetry – left-handed, right-handed, and symmetric (L. D. S). These enantiomorphic types of organisms react differently to the north and south geomagnetic poles, which is probably due to their own biomagnetic fields. It is understandable that when a GMF reversal occurs and the polarity changes, living organisms that have a biomagnetic field of the same polarity as that produced by the reversal will be adversely affected and perish. The only organisms that will remain alive, develop, and produce progeny will be those whose own biomagnetic field correspond in sign [- or +] to the established polarity of the GMF, and symmetric (s) forms, since they are magnetically most labile and supplement the pool of L- or D-enantiomorphs.” (Dubrov, Op. Cit., p. 83)

This question of functional dissymmetry is a very important question, because the laws of biosymmetry are the basis for understanding how entire biological systems can function and be subjected to axiomatic changes by means of the GMF and the nature of rhythmicity in the Biosphere.

This also raises the question of biogenic magnetite crystals (with octahedral bounding and electrical conductivity) found to be present in bees and pigeons. Biogenic magnetites were found to act as magnetic compass instruments in some insects, birds, and fish. (See [BIOGENIC MAGNETITE AS A BASIS FOR MAGNETIC FIELD DETECTION IN ANIMALS](#)) This also brings up the question: Is there some proportionality between the magnetoperception of certain insects and animals and the human mind's ability to find his way through the field of ideas? Dubrov answered that question in a very special way by demonstrating how the human circadian rhythms are directly influenced by the GMF. (**Figure 8**)

What is significant about what Dubrov reports is that the conclusion of the study was not based on individual mental response to GMF, but on a collective response of human minds that reflected both left-handed and right-handed results that balance each other proportionately. Dubrov concluded:

“Thus, it is apparent that there are profound differences in the functional responses of biological objects, and that the GMF plays an important role in this. It should be borne in mind that the functional enantiomorphic type of biological object depends also on the dissymmetric factor itself, i. e., the index, property, or character that is being investigated: The same object can be left-handed for one character (index) and right-handed or symmetric for another, and so on. As an illustration of this we give an example from a study of the circadian variation of the psychological state of healthy people and their ability to perform tasks (911). Although the authors of this paper give averaged group rhythm curves, and not individual results of the study of each subject, the dissymmetric differences in the investigated indices are very clearly manifested (Fig. 48). Thus, we find that a single population of any biological objects has an internal, definite, functional dissymmetric division based on the action of the GMF and depend on it.” (Dubrov, Op. Cit., p. 129)

See my report on [INFERENCEAL KNOWLEDGE AND THE DISSYMMETRY OF THE UNIVERSE](#).

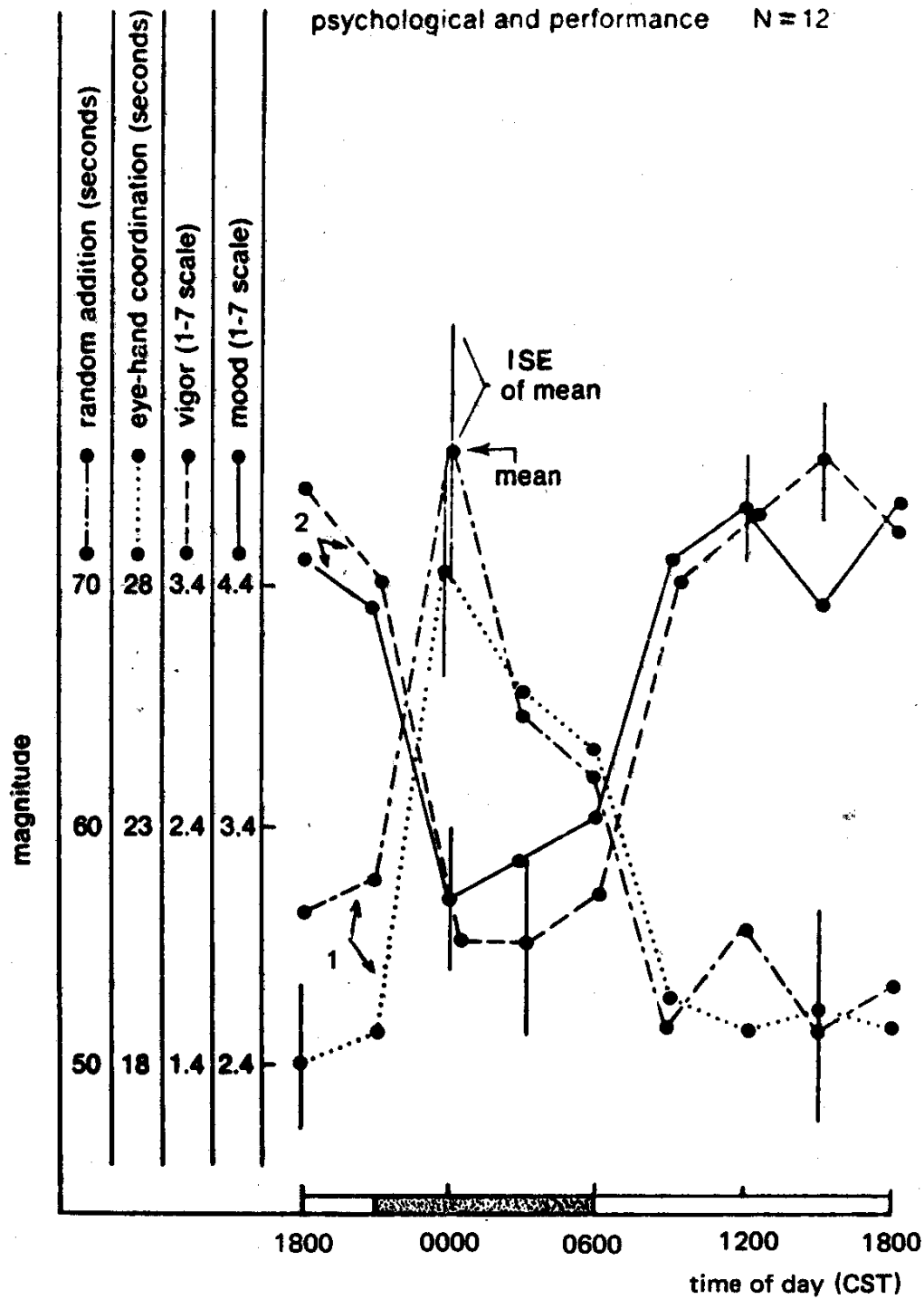


Figure 8 “Circadian rhythm of psychophysiological processes in man. The graph shows right-handed (1) and left-handed (2) types of rhythms. Data from (911) analyzed in (812).” (Dubrov, Op. Cit., p. 125) [Here, Dubrov refers to the study from (911) E. Kanabrocki, L. E. Scheving, F. Halberg, R. L. Brewer, and T. J. Bird, *Circadian variations in presumably healthy men under conditions of peace-time Army Reserve Unit training*, Space Life Sci. 4, 258-270 (1973); and his own analysis in (812) A. P. Dubrov, *Unknown factors in chronobiology*, *Chronobiologia*, (1976) in press.]

5. HOW THE GEOMAGNETIC FIELD SOLICITS BIOSPHERIC RESPONSES

“Proportionality is what holds the orbits of intelligence in the heavens and the orbits of reason together.”

Plato, *The Timaeus*

In his dialogue *The Timaeus*, Plato raised the issue of the incommensurable proportionality between the human mind and the energy flow of the universe as a whole by focussing on the relationship between the intelligence behind the heavens and the orbits of human reason. That is precisely the way to pose the problem of noospherical cognilocation. It is in that sense also that the issue of cognilocation is a question of noospherical radar in the sense of Vernadsky, especially when he denounced Newton for having excluded life and consciousness from the Cosmos. As Vernadsky reported:

« Up until now, no matter how much he tried, man was unable to solve the contradictions that existed between his own conception of the world and the scientific picture without resorting to philosophy or to religion.

« During many centuries, the scientist who did not reconcile himself with the fact that neither he nor everything that is living – conscience, thought, intelligence, - all that was of the highest value for him and was never reflected in any form anywhere in the scientific picture of the Cosmos, could ever bring any correctives in the construction of the Cosmos, — created by science, except by borrowing them from other domains of the spiritual life of humanity; that is, from philosophy, from religion, and sometimes from art.

« If he wished to remain in the scientific domain, he had to accept a picture of the Cosmos, foreign to life, and treat as erroneous and illusory whatever importance he attributed to life, to intelligence, to consciousness, and to all living beings to which he, himself, belonged.

« Confronted with the impossibility of scientifically reducing in fact the phenomena of life to physicochemical phenomena, accepted as the basis for the recent time’s picture of the Cosmos, a great movement of educated people from the scientific world began to rise up and declared that sooner or later the time would come when a change would take place, but without having to go through radical changes of the foundations that were considered as unshakeable.

« They believed that intelligence, consciousness, and the most elevated properties of life had to be reduced, in one fell swoop, with every other physiological process, to physicochemical processes as parts of the cosmic structure. Everyone believed that all of the philosophical, artistic, and religious manifestations of human consciousness could be close fitted with no room to spare within the scientific universe of Newton.

« Philosophical thinking was never reconciled with such a representation; the analysis of philosophers and of a great number of scientists who reflected on the foundations of their respective knowledge arrived at the conclusion that such a representation of the world did not derive from scientific knowledge, but was, in essence, merely a belief structure based on philosophical and even metaphysical representations. » (Vladimir Vernadsky, [*L'étude de la vie et*](#)

la nouvelle physique, Conférence faite aux Sociétés des Naturalistes de Moscou et de Leningrad, 1930, p. 4 of 23. Translation, Pierre Beaudry.)

In the spirit of Vernadsky, Dubrov puts a similar emphasis on the development of several anti-Newtonian scientific researchers who demonstrated, independently of each other, the importance of such cognitive, i.e. epistemological, interventions. As Dubrov wrote: “Thus, quite independently developing processes of cognition – geophysical and biophysical – indicate an effect of the GMF on the biosphere and have led to the development of new disciplines: *biogeophysics*, which is concerned with the effect of all geophysical factors on living organisms and the biosphere as a whole, and *geomagnetobiology* as one of its branches.” (Dubrov, Op. Cit., p. 28)

As a branch of biogeophysics, the geomagnetobiological method of investigation calls for special attention to what I call the epistemological function of the all-pervasive physical factor that is not there for the observation of sense perception. A case in point is the experimental results of global, universal, and synchronous course of biological processes which cannot be explained except by what seems to be not there; that is, by electromagnetism.

After taking into account the differences of temperature, light, humidity, and pressure, and comparing plants, animals, and human diseases done within the same time-frame, but in different locations around the planet, Dubrov noted that the extraordinary synchronism and synphasic course of variation among the three processes of **Figure 9** could not be explained except by introducing the influence of the GMF on them.

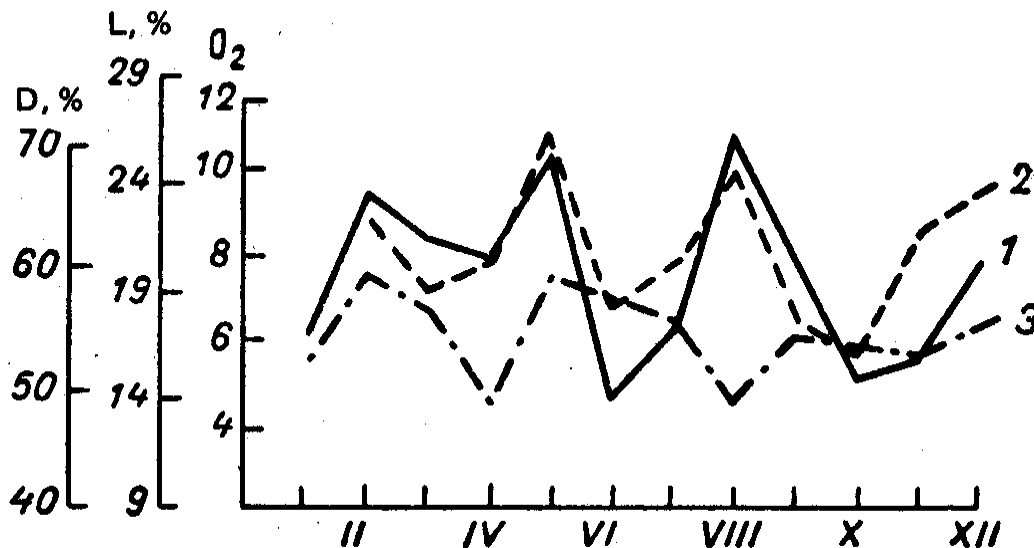


Figure 9 “Synphasic variation of different processes in 1956 (123). (1) Level of leukonia, L (Sochi, USSR), (2) dynamics of oxygen uptake by potato plants, O² (Evanston, Illinois), (3) hydrolysis of bismuth chloride, D (Florence, Italy).” (Dubrov, Op. Cit. p. 29) [Here, Dubrov refers to (123) A. P. Dubrov, *Contemporary heliobiology*, Nauka I Zhizn’ 9, 97 (1970).]

The epistemological condition of synchronicity of a global effect on such disparate biological objects as human blood, plant respiration, and chemical reaction, given such different conditions and locations, represents a thought experiment which can only conclude in the manner that Dubrov did; which is by inferring that GMF is the only global and universal process that is capable of producing such an effect on living processes outside of gravitation. This conclusion may also be further inferred because it demonstrates what has already been confirmed experimentally, which is that “both natural and weak artificial magnetic fields can act on water molecules.”(Dubrov, Op. Cit., p. 34)

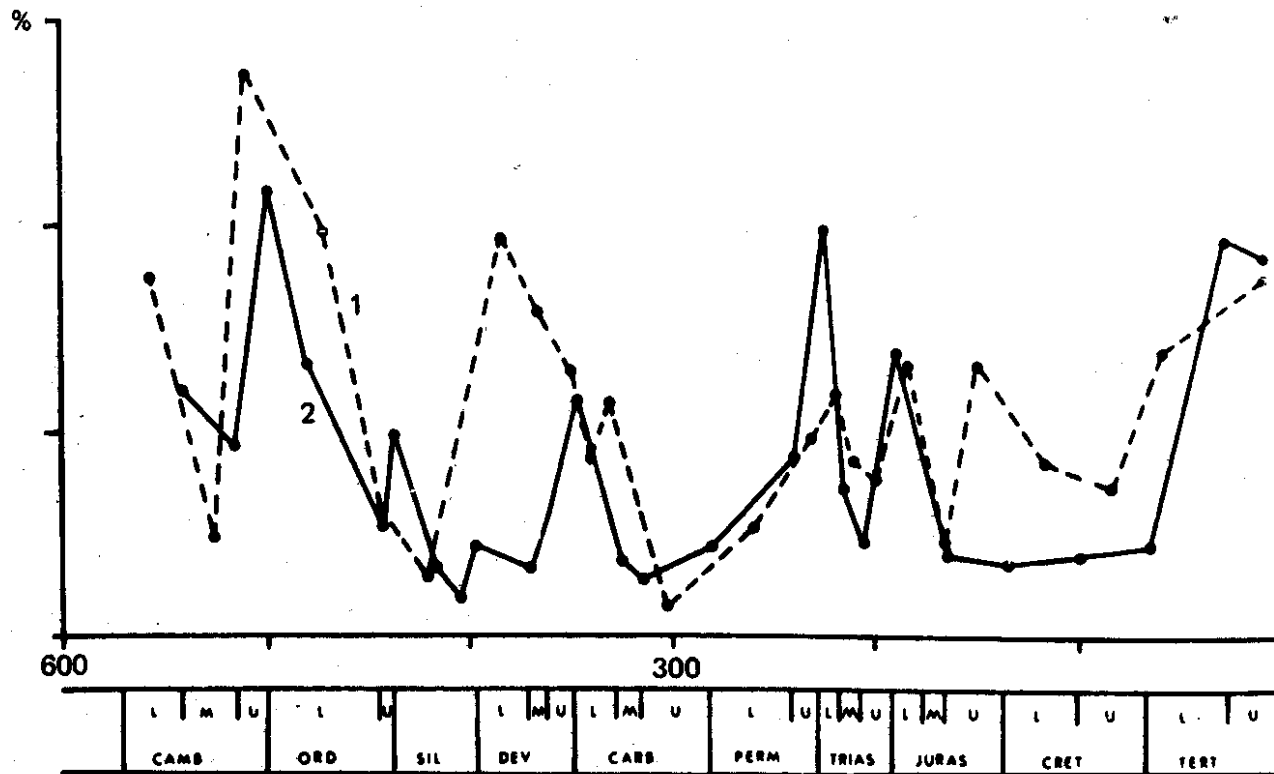
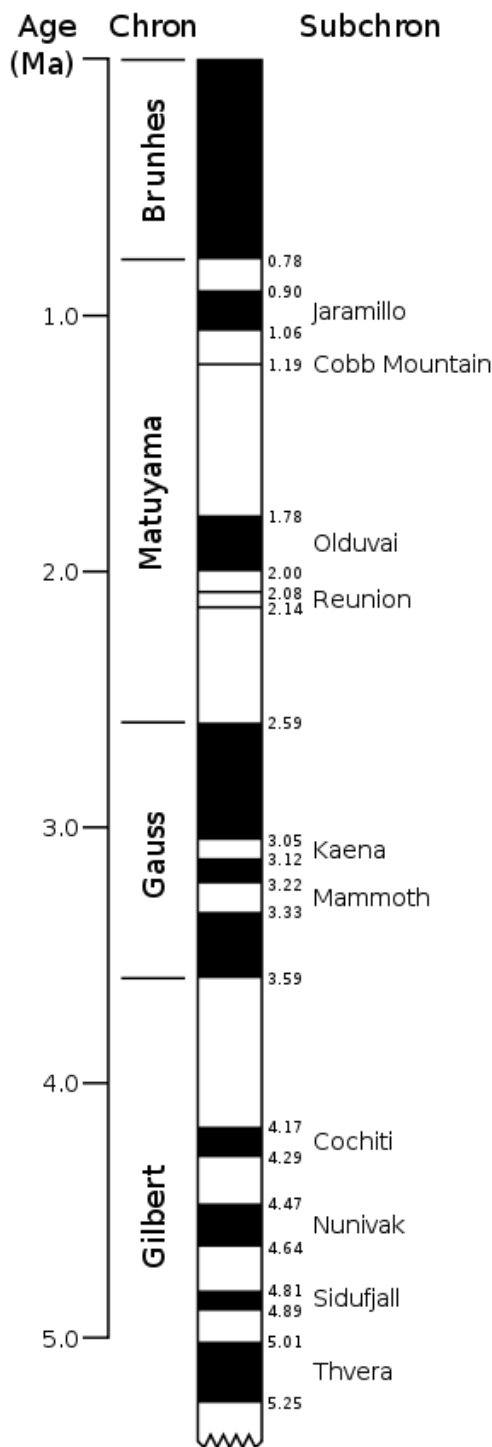


Figure 10 “Correlation between geomagnetic reversals and evolutionary changes in the organic world. (1) The index of frequency of reversals (964), (2) index of disappearance of living organisms (1127). X axis, time, millions of years; y axis, percentage of mixed measurements and percentage of disappearing families. From (785) (Dubrov, Op. Cit., p. 79)” [Here, Dubrov refers to the works of (964) M. W. McElhinny, *Geomagnetic reversal during the Phanerozoic*, Science 172, 157-159 (1971); (1127) J. F. Simpson, *Evolutionary pulsations and geomagnetic polarity*, Geol. Soc. Am. Bull. 77(2), 197 (1966); and (785) I. K. Crain, *Possible direct relation between geomagnetic reversal and biological extinctions*, Geol. Soc. Am. Bull. 82, 2603-2606 (1971).]

[It is also useful to consult the following Dubrov references: (554) L. I. Sverlova, *Effect of magnetic reversals on evolution of organic world*, in: *The Cosmos and the Evolution of Organisms*, Paleontologicheskii Institute AN SSSR, Moscow (1974), pp. 340-342; (664) A. N. Zudin, G. A. Pospelova, and V. N. Saks, *The problem of the boundary of the Neocene and Quaternary Periods in the light of paleomagnetic data*, Geologiya i Geofizika, No. 8, 2-9 (1969); (722) W. A. Berggren, J. D.



Phillips, et al., *Late Pliocene-Pleistocene stratigraphy in deep sea core from south-central North Atlantic*, Nature 216(5112), 253 (1967); (851) B. Glassand D. Erickson, *Geomagnetic reversals and Pleistocene chronology*, Nature 216, 437-442 (1967); (879) C. G. A. Harrison and B. M. Funnell, *Relationships of paleomagnetic reversals and micropaleontology in two late Cenozoic cores from the Pacific Ocean*, Nature 204, 566-569; (1964); (886) J. D. Hays and N. D. Opdyke, Antarctic Radiolaria, magnetic reversals and climatic change, Science 158, 1001-1011 (1967).]

When you apply the same correlation over a period of 600 million years of the evolution of the biosphere, an amazing picture takes hold of your imagination in which the periodicity of a series of axiomatic changes within the sphere of life on Earth corresponds to the inversions of the GMF of the planet, where the North magnetic pole reverses to the South Pole and conversely. As Dubrov illustrated in **Figure 10**, there is a correlation between the inversions of the poles on Earth and “great extinctions.”

As Dubrov showed from different studies of the bottom mud of three Oceans, the Pacific, the Indian, and the Antarctic Oceans, the results showed that all of the living organisms on the planet were subjected to synchronous axiomatic transformations during all of the GMF inversion periods: As Dubrov put it:

“The major stages in the evolutionary development of the organic world have usually coincided with a change in magnetic polarity from direct to reverse. ‘Biological catastrophes’ depend primarily on a change in polarity and strength of the GMF and, to a lesser extent (it would be more correct to say secondarily) on climatic changes, since they begin in relatively normal climatic conditions (554). Thus, there are grounds for regarding sharp changes in the GMF as a prime and direct factor in the evolution of living organisms.” (Dubrov, Op. Cit., p. 80)

Figure 11 Geomagnetic polarity inversions during the last 5 million years, according to the [Brunhes-Matuyama reversal](#). Black denotes today’s polarity, and white denotes the inversion periods.

http://en.wikipedia.org/wiki/Geomagnetic_reversal#mediaviewer/File:Geomagnetic_polarity_late_Cenozoic.svg

What is significant for my purpose, here, is not that the cycles of such geomagnetic reversals coincide with axiomatic changes in the human mind, but that such events have similar dissymmetrical characteristics. What is of interest is the global nature of such dissymmetrical inversions in affecting, from the top down, every living being on Earth at the same time; and that, as a result of it, life as a whole has undergone a net increase in energy-flux-density, each time.

As a rule, over the past 20 million years, reversals of polarity have taken place regularly on Earth at about every 200, 000 to 300,000 years, and more frequently during the last few million years. The last global reversal took place about 781,000 years ago and became known as the [Brunhes-Matuyama reversal](#). (See **Figure 11**) The next geomagnetic reversal is not to be expected any time soon.

6. MONTAGNIER'S DISCOVERY OF A NEW PROPERTY OF DNA

My question for Montagnier would be: Is there a universal medium through which *true biolocation* could be transmitted? Could water be such a medium and could mind be such a proportional higher medium for the transmission of ideas? If we could properly address the question of the memory of water to this question of homopolar electromagnetism, would we not be looking at some new and higher ordering principle relating mind to matter? As Montagnier has shown: "Some bacterial and viral DNA sequences have been found to induce low frequency electromagnetic waves in high aqueous dilutions." (L. Montagnier, J. Aissa, E. Del Giudice, C. Lavallee, A. Tedeschi, and G. Vitiello, [DNA Waves and Water](#), 5th International Workshop DICE2010, Journal of Physics: Conference Series 306 (2011) 012007, IOP Publishing.)

Am I correct in understanding that it is the DNA which produces the electromagnetic current and water which carries the electromagnetic signals (EMS) of the DNA at 7.83 Hz through that current as if within a sort of ether and that this process implies the proportionality of a time-reversal related function of increase in energy-flux-density? Furthermore, doesn't Montagnier's experiment with [DNA Waves and Water](#), demonstrate that the process is not entropic. As he states in the article:

"In the case of liquid water, the CD [Coherence Domain] (whose size is 100nm according to Eq. (1)) includes an ensemble of almost free electrons which are able to accept externally supplied energy and transform it into coherent excitations (vortices) whose entropy is much lower than the entropy of the incoming energy. Consequently, water CDs could become dissipative structures in the sense of the thermodynamics of irreversible processes [12]-[14]." (Montagnier, Op. Cit., p. 6)

The point that Montagnier makes is that such a low Schumann frequency of about 7.83 Hz is present in higher organisms such as human beings, and can be produced by their nervous systems as well as other Schumann modes, such as lightning, within the boundary limits of the surface of the Earth and the ionosphere.

Montagnier made the interesting observation that the Schumann resonance is not only appropriate for biological systems in which DNA resonates at the natural Earth electromagnetic wave level of 7.83 Hz, but that the em waves of the human brain are also of the same range. The point of interest for me is to figure out how this discovery of a new property of the DNA becomes coherent with the epistemological resonance of long waves of change in the human cycle of history? This has nothing to do with Sheldrake's so-called morphic resonance, or even brain waves for that matter.

In a 2007 paper on [DNA Waves and Water](#), Luc Montagnier discovered that after trying to separate from smaller viral particles a small bacterium called *Mycoplasma pirum*, an HIV-like genus of bacteria about 300 nanometers in size, he realized that the bacterium was negative in a sterilized water filtrate. But, when the filtrate was incubated with human lymphocytes, the bacterium recovered all of its previous characteristics. Montagnier wrote: "Then the question was raised: what kind of information was transmitted in the aqueous filtrate? It was the beginning of a long lasting investigation bearing on the physical properties of DNA in water. Indeed, a new property of *M. pirum* DNA was found: the emission of low frequency waves in some water dilutions of the filtrate soon extended to other bacterial and viral DNAs." (L. Montagnier, J. Aissa, E. Del Giudice, C. Lavallee, A. Tedeschi, and G. Vitiello, [DNA Waves and Water](#), 5th International Workshop DICE2010, Journal of Physics: Conference Series 306 (2011) 012007, IOP Publishing, p. 2)

The interesting part of this paper, for my purpose here, is the fact that the water filtrate was able to communicate the recovered characteristics of the Mycoplasma. What is fascinating about this is not so much the so-called "memory of water," which is an axiom buster in its own right, but that DNA could be teleported by electromagnetic waves like ideas are teleported by minds. That is the crucial point. For most



scientists, the question that remains to be answered is whether the Montagnier findings can be repeated by some other independent research groups. This, to me, is the right question only from the standpoint of epistemological cognilocation, because, since most laboratories are controlled by public opinion acceptability, the reproducibility is most doubtful without the appropriate funding. The right question, therefore, of repeatability must rather relate to principles and ideas that must be understood by different minds free from the underlying axiomatic assumptions of going along to get money for their research. Thus, the following underlying requisite: How can DNA be teleported by way of quantum imprints of electromagnetic waves?

Figure 12 Luc Montagnier

Three years later, at a Paris interview published in the *Science Magazine* of December 24, 2010, Montagnier explained: "What we have found is that DNA produces structural changes in water, which

persist at very high dilutions, and which lead to resonant electromagnetic signals that we can measure. Not all DNA produces signals that we can detect with our device. The high-intensity signals come from bacterial and viral DNA.” And then, he added: “ I have found these signals coming from bacterial DNA in the plasma of many patients with autism, and also in most, if not all, patients with Alzheimer, Parkinson’s disease, and multiple sclerosis ” (*French Nobelist escapes ‘Intellectual Terror’ to Pursue Radical Ideas in China*, <http://www.scribd.com/doc/47426344/Luc-Montagnier-French-Nobelist-on-homeopathy>)

Montagnier noted in a recent [interview in Science Magazine](#): “I can’t say that homeopathy is right in everything. What I can say now is that the high dilutions are right. High dilutions of something are not nothing... It’s not pseudoscience. It’s not quackery. These are real phenomena which deserve further study.” And then, he added: “There is a kind of fear around this topic in Europe. I am told that some people have reproduced Benveniste’s results, but they are afraid to publish it because of the intellectual terror from people who don’t understand it.” ([The “intellectual terror” that keeps homeopathy out of the mainstream](#), 12 January, 2011)

CONCLUSION: HOMEOPATHIC MEMORY HYPOTHESIS

Whenever one investigates the question of the universe as a whole, and most emphatically with respect to the human mind, the question of memory arises, because from astrophysics, psychology, and biochemistry, the question of the relationship of the One to the Many or the whole to the parts, implies that phenomena should be viewed as paradoxical systems of recurring feedback interactions that require storage of information in one form or another. Such is the memory function that must be considered for all physical, biological, and mental processes in the universe as a whole. As was reported by researchers, Gary E.R. Schwartz and Linda G.S. Russek:

“The systemic memory hypothesis provides a plausible explanation for a host of seemingly anomalous phenomena in physics, chemistry, biology, medicine, and psychology, including memory in water (homeopathy), cellular memory in transplant patients, psychometry, cold fusion, out-of-body conscious experiences, and survival of consciousness after death.” ([The Origin of Holism and Memory in Nature: The Systemic Memory Hypothesis](#))

If I can add my two cents to the list, I prefer to use the term *Epistemological Memory Hypothesis* rather than “*Systemic Memory Hypothesis*” in all of the above mentioned domains, simply because, each and every one of these domains requires a self-critical monitoring and appraisal of its own knowledge. For instance, the Epistemological Memory of an organized totality such as H(2)O, is never the memory of its parts understood from the bottom up, that is, of Hydrogen and Oxygen taken separately, but rather the memory of its totality, that is the memory of water, from the top down. That is the memory of the Implicate Order.

This is how memory works. It is enfolded from the higher realization of energy-flux-density and unfolds to the lower domains of distributions of its effects. Researcher, Mohd Peter Davis, had an

excellent insight into how biochemical processes are generated throughout the planet as a whole in a similar implicate manner. As he said:

“The process might be complex, but the idea was simple. New genetic information is acquired, not directly from the environment, but from other living cells. Thus, a new genetic invention by one cell gets multiplied, transmitted, and tested throughout the living world. New genes or combinations of genes are spread by viruses in a complicated way much like new ideas spread throughout the human population.” (Mohd Peter Davis, *Biosphere Technology In the Nuclear Age*, 21st CENTURY, Fall-Winter, 2006, p. 87.)

Montagnier’s work is a similar case in point. For example, the dynamics of homeopathic high-dilution therapies relate to a memory function in which resonance spreads a dynamic pattern of recognition that is circulated universally and which loops back information throughout the viral community that became formed by the inversion power of dilutions. That is how biolocation processes are also made to be functional for the entire biosphere. As Mohd Peter Davis put it, this is how “in the 1950’s, myxomatosis wiped out 600 million rabbits, 99 percent of the rabbits in Australia.” My question is: Doesn’t the human mind also progress like a homeopathic cure? Doesn’t the human mind also require to be immunized by the injection of poisoned ideas before it is enabled to progress upward in search of new principles?

Lastly, the fact that the GMF affects the Biosphere as a whole and at all levels of its development has become more and more an accepted reality, however, the view that its origin comes from a triply-connected motion of magnetic fields is not properly understood, because most people still believe that life comes from a lower manifold. It remains to be demonstrated that the origin of molecular dissymmetry in living systems comes from a higher magnetic field manifold of triply-connected action, as opposed to chemically abiotic sources, and that the difficulty simply resides in properly understanding the notion of space-time reversal generated from the appropriate galactic geometry; that is to say, from the same reason that life cannot come from a lower manifold of two-dimensional-non-life. Therefore, such events as great extinctions, as Professor Liboff seems to suggest, may be caused by galactic factors that impinge upon the Earth from the outside, during long periods of weakened GMF.

The point is that such an ordering of mnemonic information, as it has been stored for billions of years through increases in energy-flux-density into the different abiotic, biotic and cognitive domains of the universe, can be retrieved only at a specific interval of resonance which is tuned to the universal pitch of C-256 of our classical musical tuning scale, and whose Lydian intervals provide, as Beethoven demonstrated in his *Piano Sonata No. 14 in C-Sharp Minor, Opus 27*, the most plausible basis to generate change upward for the purpose of increasing the energy-flux-density of mankind over the universe.

FIN