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# WHAT IS IT THAT MAKES US HUMAN?

A report on Negative Epistemology

Pierre Beaudry, 8/20/2019

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## FOREWORD

The present period is so much a LaRouche time that you can cut it with a knife; and, what amazes me the most about it is that the truth of what Lyn has been saying for the last 60 years is now coming out: "IT'S THE BRITISH STUPID!" How did he know that? How can you make the difference between what is true and what is fake?

Lyn always stressed the need to investigate your mind first and foremost because if you try to understand anything else first, you might not be able to burst the bubble you are living in; and you may never know how you can get to become a real human being. However, the reason why you may not become a real human being is because you don't try to know *what you don't know you know*.

As a result, you could be easily manipulated and controlled by a British-run Strategy of Tension operation; and, that may be the end of us all. The British oligarchy has become so desperate to keep you under its control that Prince Charles was crazy enough to announce that the end of the world is coming 18 months from now.

There is also another reason why you should never leave home without checking with your mind first. The reason is that knowing how your own mind works is the best way to know God's Mind and His Intentions; and, as far as I

know, the best way to know God's Mind is to try and figure out what the future of mankind must be. Lyndon LaRouche recommended the following self-generating method of forecasting:

“The process of individual discovery, and refinement of one's own knowledge of universal principles, takes the form of a dialogue within one's self. It is the experience of that self-critical process of change, the which is generated by such internal dialogues, which should lead one to a more refined sense of one's inner self. Such a dialogue on some specific paradox may be recurring over days, weeks, or longer. On one occasion, it is with others. On another occasion, it is with oneself. Nonetheless, on every occasion, it is always, primarily, with oneself.”<sup>1</sup>



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<sup>1</sup> Lyndon LaRouche, [Prometheus and Europe](#), EIR, July 23, 1999.

The Hand of God by Auguste Rodin. Musée Rodin, France

## INTRODUCTION

“...Man imagines his gods according to a conception of the universe which coheres, functionally, with man's image of himself.

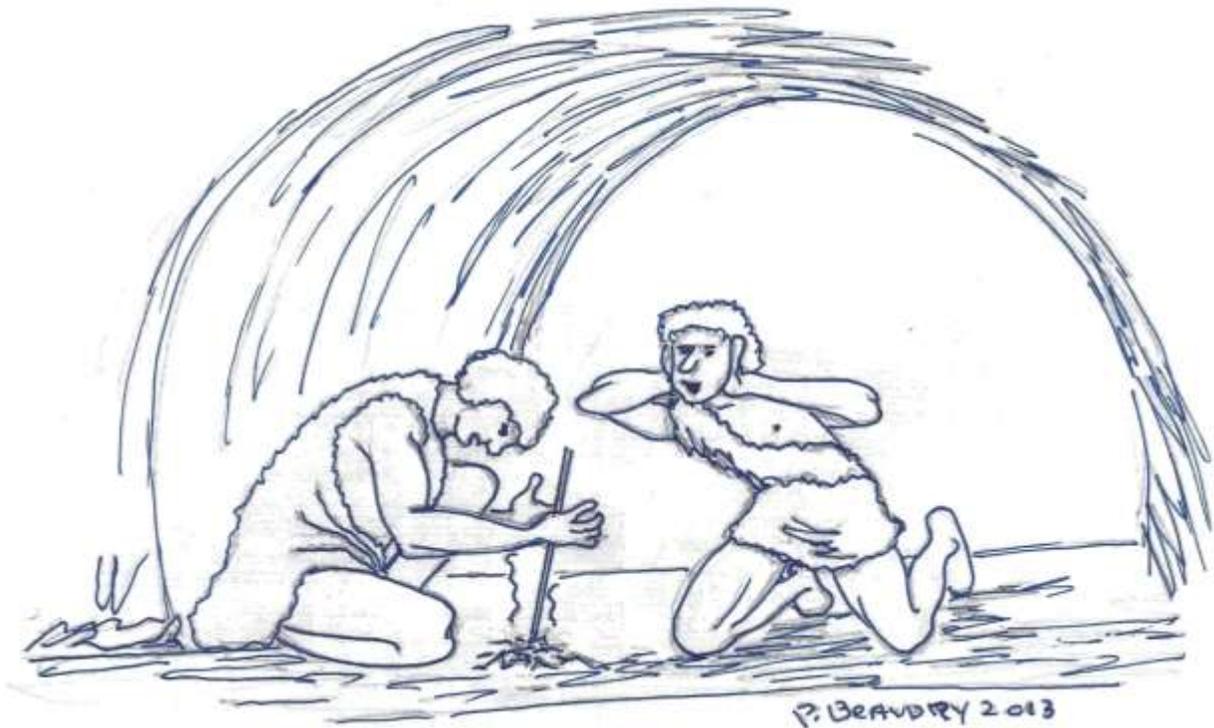
"Aeschylus's Prometheus did not simply defy the pagan gods; he pointed toward a real God, the same God identified in Plato's *Timaeus*, upon whose justice for mankind Prometheus implicitly relied. A Prometheus image as, artistically, a necessary idea, which contributed an essential role during the recent thousands of years of emergence of the best features of modern European civilization today."

Lyndon LaRouche, [\*Prometheus and Europe\*](#)

The primary question that Lyn investigated in most of his writings, as for instance, in his 1999 report on [\*Prometheus and Europe\*](#) was: What is it that makes us human? What makes us different from the animal? Is it our mind? Is it our understanding of things? I doubt that, because animals also have minds, and some of them know how to use it better than we do, and with a higher degree of accuracy and efficiency. So, what do humans do that no animal can do?

What is it that our great ancestors did more than 6 million years ago in some dark cave in Africa that no animal has ever been able to replicate? Man created fire and knew how to control it. Fire had already been created by God in thunderclouds, and the very fact of looking into the heavens and asking these questions about fire and about God is the same thing as discovering fire; that is what makes us Promethean alphestes, because this is also how you start fires in other people's minds and cause them to light up. The fire of epistemological knowledge is known as the science of Prometheus, the science of putting yourself *in the place of others*, the science of optimism; that's what it means to be a human being. And, the greatest fire of all is to understand and transmit with passion what is going on in the minds of other human beings. So, how about creating some fireworks?

Let this idea of creating fire sink into your mind for a while. You might discover that fire works like LaRouche's mind and that's what the British oligarchy fears the most.



Don't do it: it's LAROCHE!

As Lyn demonstrated, the human mind can know the future; and, not only can it know the future, but it can also cause the future to exist in the present. This ability to forecast what other human minds are able to do and think by time reversal is what Leibniz called *Felicity*.<sup>2</sup> So, this is the burning question I have for you:

### **WHAT DOES IT MEAN TO BE HUMAN?**

First and foremost, let's hypothesize that to be a human being means understanding the difference between a joke and not a joke. How do you make the difference between crackpots who are attempting to manipulate your mind and turn

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<sup>2</sup> See my last report : [LEIBNIZIAN OPTIMISM AND THE SCIENCE OF FELICITY](#).

you into a fake human being and a normal human being who is self-critical and who does not lose his sense of humor when he encounters stupidity. For instance, have a look at François Rabelais's treatment of the *coincidence of opposites* with his story of *Epistemon's Displeasure at the Institution of Lent*.

The main characters of Rabelais's adventures of the *Fifth Book*, Panurge, Friar John, and Pantagruel, are visiting the convent of the Quavering Friars<sup>3</sup> located on the Island of Sandals, and Epistemon, who is accompanying them, is telling the story of the "real hidden intention" behind the 40 day period of penance and sacrifice that the Church instituted in preparation for Easter week. Rabelais wrote:

"Did you observe," asked Epistemon, "how that wicked and miserable Quaverer quoted March to us as the month for lechery?"

"Yes, answered Pantagruel, "and what's more it always falls in the Lent, which was instituted for the maceration of the flesh, for the mortification of the sensual appetites, and for the restraining of the venereal passions.

"Now," said Epistemon, "you can judge the intelligence of the Pope who first instituted it, when this poor sandal of a Quaverer admits that he is never so beshitten with lechery as in time of Lent, also from the plain arguments adduced by all good and learned physicians. For they affirm that never in the whole course of the year is any food eaten more exciting to the act of concupiscence than at that time. For Lent-fare is: beans, peas, haricots, chick-peas, onions, walnuts, oysters, herrings, smoked fish, pickles, and salads entirely composed of aphrodisiac herbs such as rocket, garden-cress, tarragon, watercress, water-parsley, rampion, horned poppy, hop-buds, fig, rice, and raisins.

"You would be very much surprised to learn," said Pantagruel, "that the good Pope who instituted Holy Lent especially prescribed these foods to

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<sup>3</sup> Rabelais gave this musical name "quaver" to a fictitious religious order because, as he said: "A quaver is less than a song."

encourage the multiplication of the human race. For he knew *that* to be the season when the natural heat proceeds from the interior of the body, in which it has lain throughout the winter cold, and diffuses itself about the surface of the limbs, as the sap does in trees. What convinces me of this is that in the baptismal register of Thouars, the number of children is greater in October and November than in the other ten months of the year; and so, by retrospective computation, we find that they must all have been made, conceived, and engendered in Lent.

“I am listening to your argument,” announced Friar John, “and I’m getting no small pleasure from it. But the Vicar of Jambet<sup>4</sup> attributed this copious impregnation of women, not to Lenten-fare, but to the little humped-back beggars, and little booted preachers, and dirty little confessors, who at this season of the year damn all erring husbands three fathoms lower in hell than Lucifer’s claws. So, in their terror, these husbands give up rogering the servant girls and return to their wives. I have spoken.

“Interpret the institution of Lent according to your own fancy,” said Epistemon. “Everyone is full of his own ideas. But, all the doctors will oppose its suppression, though I believe it is impending. I’m sure they would. I’ve heard them say so. For without Lent, their art would fall into contempt. They would earn nothing, since no one would be ill. All diseases are sown in Lent. It’s the nursing ground, the native bed, and dispenser of all maladies.”<sup>5</sup>

Asiatic cultures used different ways of getting people to think and laugh galactically in the same way Rabelais does, by using theatrical situations where you also have a *coincidence of opposites*. For example, the traditional Japanese Kabuki Theater has a popular play showing the coincidence of what appears to be real and what is actual reality.

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<sup>4</sup> Here, Rabelais is referring to himself because, in real life, he actually had been the Parish Priest of Saint Christophe –du-Jambet, near Mans.

<sup>5</sup> Francois Rabelais, *Gargantua and Pantagruel*, Penguin Classics, Translated by J. M. Cohen, Penguin Putnam inc., New York, 1955, pp. 672-674.

In a short period of about ten minutes, at the beginning of the video [KABUKI KOOL 2019](#), actor Kataoka Ainosuke, plays the role of a dancing girl, [ 2:25-10:25/27:59] to demonstrate how the **BU** (dance) in the word **KA-BU-KI** brings together the truth of how the human mind works through the mask of theatrical artistic composition; that is, through the art of putting yourself *in the place of another*. The scene is called: *The Girl at Dojoji Temple*.



Kataoka Ainosuke as *The Girl at Dojoji Temple*



Kataoka Ainosuke

## WHAT DOES IT MEAN TO PAY ATTENTION TO THINGS WE DON'T KNOW WE KNOW?

"The test pilot is solving problems. He's looking for inadequacies or short-comings, or barriers to substantial safety, and increasing performance in flight. And his job is to identify those problems, and assist in finding a solution. So it is a problem solving job, and you are always working with the unknowns. I found that a fascinating part of my career path. I really enjoyed the opportunity to contribute, in some way, toward the solution of problems.

"The history of humanity has been slowly increasing the boundaries of knowledge, and knowing more and more, and feeling comfortable inside there. But at the edges, it is always going to be a challenge!" Neil Armstrong<sup>6</sup>

What does it mean to be Promethean in practice? This is a question that everyone should investigate at least once during his or her lifetime, because it is the most difficult question of all: How can the mind deal with this sort of unknown?<sup>7</sup>

Leibniz's answer to that question was difficult but simple: you have to put yourself *in the place of others*; and that should make you happy, that is the nature of *Felicity*. LaRouche said the same thing: put *yourself in the place of others* and you will increase your energy-flux density. What did Leibniz, LaRouche, and a few others know that I don't know? Is this just another *one of those things I don't know I know*? Why did Christ not rebel against the wretchedness of his tormentors who put him to death on the cross *for the benefit of others*? Why is suffering required to become a happy human being? What is the secret of how to be optimistic? As Jacques Cheminade reminded us at the end of his short report on *Ecological and Financial Warfare*:

"I am fully optimistic because our enemies have to expose themselves for what they are: their scheme is becoming more and more inhuman, contrary to our human identity. Lyn's concepts and programs, together with the New Silk Road, are in absolute contrast an appeal to a better future. If, as Schiller said, our commitment to truth and reason goes through our hearts, victory is not only possible but unavoidable; provided we maintain our programmatic fight and our cultural empathy and mental curiosity for the advantage of the other, beyond all bondages and parochialisms."<sup>8</sup>

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<sup>6</sup> <https://www.youtube.com/watch?v=KJzOIh2eHqQ> (5:15- 6:14)

<sup>7</sup> See my two reports on the science of *going on a nowhere*: [THE LAROCHE METHOD OF THE CREATIVE-MENTAL PROCESS, PART I](#), and [THE LAROCHE METHOD OF THE CREATIVE-MENTAL PROCESS, PART II](#).

<sup>8</sup> Morning Briefing for August 7, 2019.

Is it that obvious that our enemy can't win? How do you get to know that with such certainty? You know that by constantly *paying attention to things you don't want to know you know*. Now, what does that mean? If you think about it, it simply means that evil things cannot exist by themselves; they can only exist because the good is missing, and therefore, if you pay attention to what is not there and you are steadfast, evil can't last because of your awareness of what is lacking.

Of all of the branches of knowledge that man has been studying, *Negative Epistemology*, or the knowledge of what is not there, is the most difficult to learn because paying attention to *things you know you should know* is the last thing you tend to pay attention to.

However, there are difficulties to be surmounted, because, when you put yourself *in the place of others*, you will tend to get into trouble, because you will have to deal with all sorts of contradictions, anomalies, and paradoxes. So, you have to be on the lookout for such singularities.

*Negative Epistemology* is a field of thorns, but it can also be a bed of flowers as well. Neil Armstrong found happiness in such difficult problem solving conditions, and so did Leibniz, LaRouche, and many others. How did they do it? Lyn's answer was: "To solve the problems that lie ahead for mankind, we must start the work of fundamental scientific discovery today, lest future generations curse our memory for our failure to do so. For what other purpose do we bring children and grandchildren into this world, and nurture the development of their moral character and intellectual powers?"<sup>9</sup> In another instance, Lyn wrote:

"It has become my opinion that if one knows only one thing about the universe as a whole and if that one thing be true, such an ignorant person has the advantage of knowing nothing falsely. With this advantage, a person who nourishes his ignorance rightly is advantaged to know more about the universe than those ordinarily esteemed as the most learned."<sup>10</sup>

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<sup>9</sup> Lyndon LaRouche, [Big Payback From Mars Colony Mission](#), first published in EIR on October 21, 1988, EIR, August 2, 2019, part 2 of 2.

<sup>10</sup> Lyndon LaRouche, [The 'Strong Hypothesis' of Biophysics](#), unpublished internal memo to the ICLC, September 8, 1987.

The irony is that *knowing your ignorance* is something like seeing the nose in your face. It is the first thing to stand out in front of you, yet you don't pay attention to it. It is so close to you that you are blind to it, and as a result, it is the first object of knowledge to be overlooked. This confronts you with the strange reality of *what you don't know you know*. A proof of this insight into *Negative Epistemology* was provided by the son of French scientist, André-Marie Ampère, Jean-Jacques, when he wrote about this new sort of knowledge that his father called "*cautious probing*" ("*tâtonnement*"):

« Of all the branches of knowledge, psychology is the one whose progress had to be, and was in fact, the most retarded because of the difficulty of studying objects that are always present before us and always approximately the same. It is already a great accomplishment in the study of this science to discover something so amazing among our intellectual phenomena that are constantly happening in us, and which of all that the created universe has to offer us should cause in us such a profound astonishment.»<sup>11</sup>

What André-Marie Ampère called "psychology" he had also identified as "the science of intelligence." However, because of the mind's familiarity with its object of study, the science of human intelligence is the most difficult of all. Jean-Jacques Ampère, explained the difficulty as follows: "...Nothing is more difficult than this reflection on ourselves, without which no internal observation is possible; and my father realized early on that the study of oneself, as an intelligent being, is the most difficult of all because the object of this study is the instrument of all possible study."<sup>12</sup>

Because of this conflict of opposites (the subject and the object), Ampère chose a method of "*cautious probing*" in order to access *what you didn't know you*

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<sup>11</sup> J. J. Ampère, [Philosophie des deux Ampère](#), Deuxieme édition, Barthelemy Saint-Hilaire éditeur, Didier et Cie, Libraires-Éditeurs, Paris, 1870, p. 9.

<sup>12</sup> J. J. Ampère, Op. Cit., p. 10. However, the difficulty is at its minimum when the individual intelligence conducting this experiment is subjected to an axiomatic transformation, because the individual subject of the study discovers an improvement in his changing instrument and the object of that study has no objection in abandoning the old dysfunctional axioms.

*knew*; that is, the essence of *Negative Epistemology*. Space specialist, Krafft Ehrlicke was struck with the same sort of perplexing idea when he stated ironically, but thoughtfully, that the ancestor of mankind was not the ape but, rather, photosynthesis. How can this be?

The perplexing part of this discovery of photosynthesis is that life itself captured the Promethean power of change by reaching out to the fire in the Sun and in the Galaxy above in order to produce the most significant axiomatic change in the Earth's Biosphere; and therefore, Ehrlicke realized that human beings had to do the same with the creation of the Noosphere:

“With photosynthesis, life developed control over the basic staples of life. Life created out of primordial materials—CO<sub>2</sub>, and water. With the aid of solar radiation, life changed solar radiation to chemical energy. And with that, the basis on which everything else relied was created, including the parasitic oxygen metabolism, which replenishes the only primordial resource in short supply, namely, CO<sub>2</sub>.

“So, in the womb of what was created here—the highly negentropic biosphere, an immensely complex system of ecological niches that developed, over time, to encompass an entire planet, and industrialize it, and process its energy and its materials—in the womb of this biosphere arose then the human being as the seed of the next higher metabolism.

“Each sphere, each large environmental sphere (some of which took on planetary proportions, and others had subplanetary proportions), has to have one umbilical metabolism: I call it an umbilical metabolism, because it is that kind of metabolism that interacts between the negentropic sphere, and the entropic wilderness on the outside. It was photosynthesis that did this. Oxygen metabolism is not an umbilical metabolism. It's parasitic. It eats other animals, and it consumes plants. Animals and humans, being in this respect the same, rely on the umbilical metabolism of photosynthesis, and some other fermentation metabolism such as nitrogen fixation, but the primary one is photosynthesis.

“In that respect, the human being is not so much a descendant of the ape or proto-ape; the human being is actually the descendant of photosynthesis, because information metabolism is the first metabolism that actually can interact with inorganic matter and therefore is an umbilical metabolism; and is broader, even, than photosynthesis, because we can interact with nuclear matter, we can build a chemical industry of vast proportions, although chemosynthesis has done that, too; we will in the next century, I’m sure, build up an atomic industry of enormous proportions—and a subatomic industry; and a quark industry.”<sup>13</sup>

This Promethean power of forethought and foresight of the Biosphere also gives human beings the conscious power of being in harmony with the universe as well as becoming aware of human immortality. The human anticipation of death not only acknowledges the limitation of individual human lives, but also triggers the discovery of immortality as the fundamental characteristic of humanity in its totality, including all that must contribute to the improvement of humanity’s ability to survive beyond all apparent limitations. Let me remind the reader what LaRouche reported about this important epistemological discovery:

“This reporter’s original contributions to a science of physical economy were prompted as a reaction to some absurd ideas about “information theory” popularized by Professor Norbert Wiener and John von Neumann, but Wiener’s and von Neumann’s blunders were merely imitations of the false reasoning of Kant. A refutation of Kant’s blunder suffices to disprove modern “information theory” conclusively. It was also the starting-point for this reporter’s original discoveries in physical economy.

“Kant’s cited dogma was based on a false interpretation of the problem of theorem-lattices which we have just described above. He argued

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<sup>13</sup> Krafft Ehrlicke, [\*Human Technological Progress, Like Photosynthesis, is a Principle of the Universe\*](#), EIR, July 26, 2019.

[https://larouchepub.com/eiw/public/unlisted/2019/eirv46n29-20190726/Zom-GH6b4eLq/4629-five\\_more\\_conference\\_presentat.html](https://larouchepub.com/eiw/public/unlisted/2019/eirv46n29-20190726/Zom-GH6b4eLq/4629-five_more_conference_presentat.html)

along the following lines. Let us assume the case that the amount of change in the set of axioms and postulates of Lattice A, to generate Lattice B, is of the smallest possible degree. From Kant's vantage-point, in this case, the logical gap between the two lattices exists, undeniably, but no intelligible picture of the gap itself is possible.

“The opposite approach, by Leibniz, by such founders of modern science as Nicholas of Cusa, Leonardo da Vinci, and Kepler earlier, and by such as Bernhard Riemann later, was based on the method of the Socratic dialogue, as typified by Plato's dialogues. In those dialogues, a proposition is adopted for examination. The approach taken is, first, to identify the underlying assumptions on which that choice of proposition is based, and then, in turn, to examine the assumptions underlying the first set of assumptions. The second set of assumptions has the character of a set of axioms and postulates. Change of a false assumption in the second set, is then the basis for supplying a corrected, alternative form of the proposition.

“This was the method used explicitly by Leibniz to affect some of his fundamental discoveries. Obviously, contrary to Kant, the processes of creative discovery are intelligible.”<sup>14</sup>

The axiomatic change which Lyn refers to is not a mathematical-physics transformation, because no deductive knowledge can have access to this sort of thinking. The discontinuity is of an epistemological nature and can only be made accessible through a non-linear form of *learned ignorance* as exemplified by Cusa, Kepler, Leibniz, Gauss, Dirichlet, Riemann, Weierstrass, Cantor, and Beltrami. As Lyn said:

“What we must do, obviously, includes intensive study of important physical phenomena which contradict all generally prevailing ideas of physics today. There are three areas on which we must concentrate: astrophysics, microphysics, and optical biophysics. These are, so to speak,

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<sup>14</sup> Lyndon LaRouche, [Big Payback From Mars Colony Mission](#), first published in EIR on October 21, 1988, EIR, August 2, 2019, part 2 of 2.

always the outer limits of experimental knowledge; it is by proving that newly discovered laws are consistently applied to the areas of these three experimental limits, more or less equally well, that truly fundamental scientific discoveries have been accomplished in the past centuries, and will be by the future generations of scientific workers. In these areas, the kinds of impudent phenomena we referenced are termed 'physical anomalies.' They are phenomena which exist, without doubt, and yet their existence defies generally accepted scientific thinking."<sup>15</sup>

### **THE ENIGMA OF 'WHAT IS NOT THERE' IN ADAM'S 'PROMETHEUS BOUND'**

The Promethean Paradox can be understood as an attempt by all means possible to get out of your own finite limitations; that is, get out of yourself and go into what you think is impossible that you become. But then, how do you get out of yourself?

Few artists have approached Prometheus from the vantage point of knowledge, from the vantage point of epistemology, and more precisely, from *Negative Epistemology*. What is the epistemological significance of Nicholas-Sebastien Adam's "*Prometheus bound*"? What is he trying to provoke in the mind of the spectator?

Artistic rendering of the Prometheus legend is generally aimed at either representing him as stealing fire from heaven, creating man, giving fire to man, or being enraged at Zeus for torturing him. The challenge, here, is to look at Prometheus as a state of mind rather than as victim, a hero, or a god.

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<sup>15</sup> Lyndon LaRouche, Op. Cit.



“Prometheus bound” by Nicholas-Sébastien Adam, 1762.

The only artistic representation of Prometheus I know which focuses on *what is not there*, and on using *what is not there* to solve the Prometheus Paradox is the sculpture of Adam that Lyn used for his July 23, 1999 EIR article: [Prometheus and Europe](#).

Consider Adam's *Prometheus bound* as an axiomatic model of the argument that Lyn made on the significance of the *simultaneity of eternity*; that is, resolving the mystery of the Crucifixion of Christ. How does Christ represent the resolution of the Promethean Paradox of the *coincidence of opposites*? Lyn wrote:

“This is not a mystery in the sense of being inherently inexplicable to reason; it is a mystery in the sense it appears in the form of a profound ontological paradox, which can be made comprehensible only by mustering within oneself the relevant cognitive action of discovery. That mystery, so described, taken into account, what we must credit to Plato's Classical Greek culture, is the source of the capacity, or, if you prefer, susceptibility, to solve the paradox posed by Moses' definition of the nature of man..” [...]

“The crucial conception, the idea of ideas, which makes that connection comprehensible, is the notion of *the simultaneity of eternity*. *There lies the key to the challenge of that great metaphor, the historical mystery of Christ [emphasis in original]*.”<sup>16</sup>

The progress of that continuity between Prometheus and Christ becomes even more evident when the connection is made with Socrates. In Plato's *Gorgias*, Socrates spoke of the idea of love of mankind (*agape*) when he said: “*As for the question of justice, to do injustice is more to be avoided than to suffer injustice.*”<sup>17</sup> That is the whole crux of the matter.

In Adam's sculpture, look at how desperate Prometheus becomes when he attempts to break his chains; so much so that he stopped paying attention to the bird that is eating him up. What did Adam know and want you to know? If you wish to figure out why Prometheus is not fighting back against the Eagle eating his

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<sup>16</sup> Lyndon LaRouche, [Jesus Christ and Civilization](#), EIR, October 6, 2000, p. 33-34.

<sup>17</sup> Plato, *Gorgias*, 489a.

liver, look for *what is not there*. Ask yourself: why is there no ankle chain attached to his right foot?

## WHY LOOKING AT YOURSELF FROM THE OUTSIDE AND FROM THE FUTURE IS OPTIMISM



Apollo 11 Mission Image of the Earth as viewed from the Moon. NASA

“Therefore, we have to go to Mars, not because we want to get there, but we don’t want to *fail* to get there! Because, what does this mean? We’re going to a new conception of basic economic infrastructure, which started with the space pioneers in the 1920s, and into the United States. We began to realize that mankind needs a *new* dimension, beyond railroads, beyond old water systems, needs a new dimension for the expression of humanity in the Solar System.

“This is not just for “getting there.” This is for giving man a mission, a natural mission for mankind, on which we will base the culture which increases mankind’s options, and also the security of humanity. That is, by developing ourselves, instead of sitting on one planet and depleting that planet and doing nothing else, and becoming fat and lazy—instead of that, let’s take on a *mission*!

Lyndon LaRouche<sup>18</sup>

André-Marie Ampère was the first thinker in history to apply the principle of repulsion/attraction of electromagnetism to the domains of epistemology and of

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<sup>18</sup> Lyndon LaRouche, [Why Do We Go to Mars?](#), first published in EIR on July 26, 2010; last published, August 9, 2019.

psychology, and most effectively, to the triply-connected least action principle of spiral quadratics that Lyn applied to music in his own discovery of principle.<sup>19</sup>

Ampère's use of quadratics and of the Leibniz logarithmic divisions of his calculus is not only constructible geometrically, as I have done with the arithmetic/geometric mean of the logarithmic conical spiral, but is also coherent with Lyn's outline of the transfinite/anti-entropic<sup>20</sup> ordering principle as applied to the register shift of the human voice. The moral commitment to this principle can be found in Leibniz's idea of *Felicity*. Ampère called this quadratic domain *Mathesiology*, or "cautious probing" of one's powers of *knowability*, which he described as the following four points of view:

"Whatever the object of his studies, man must first assemble the facts, whether physical, intellectual, or moral and it is then necessary for him to seek what is, in a way, hidden under these facts. It is only after these two kinds of investigations, which correspond to the two subordinate points of view included in the first principal point of view, that one is able to compare the results obtained up to that time, and deduce from them the general laws; that is, the comparisons and the laws which belong also to the third subordinate point of view. Then, the investigator can go back to the causes of those facts which he observed under the first, which were analyzed under the second, and compared, classified, and reduced to general laws in the third: this search for the causes of what he has learned in the first three points of view, and that of the effects which must result from known causes, constitutes the fourth subordinate point of view, and thus completes all that is possible to know about the object we are studying."<sup>21</sup>

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<sup>19</sup> See my report: [THE LEGACY OF LYNDON LAROUCHE WITH AMPÈRE AND FRESNEL](#)

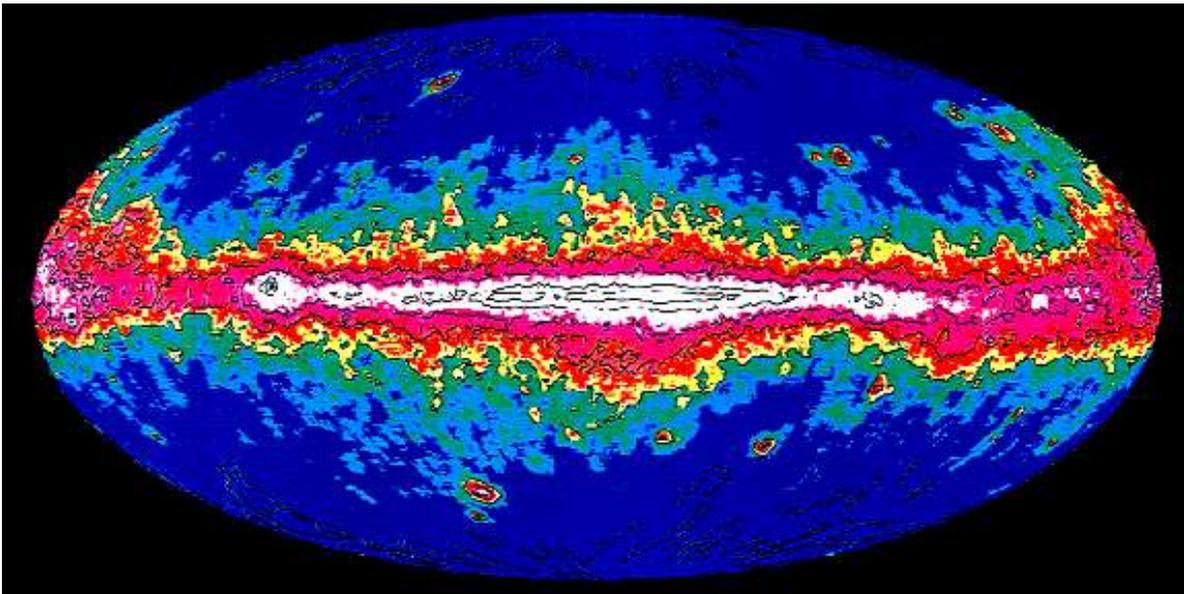
<sup>20</sup> See my report: [LEIBNIZIAN OPTIMISM AND THE SCIENCE OF FELICITY](#). The double negative of anti-entropic reflects the fact that the natural human voice is incapable of changing to a higher register by itself because the transfinite power does not come readily to the human mind. However, with the aid of a forceful focus of the free will, the voice is incapable of not doing it.

<sup>21</sup> André-Marie Ampère, [Essai sur la philosophie des sciences, ou, Exposition analytique d'une classification naturelle de toutes les connaissances humaines](#), Mallet-Bachelier, Libraire-Éditeur, Première Partie, Paris, 1856 : [IRIS](#); Seconde Partie, Paris, 1843 : [IRIS](#).

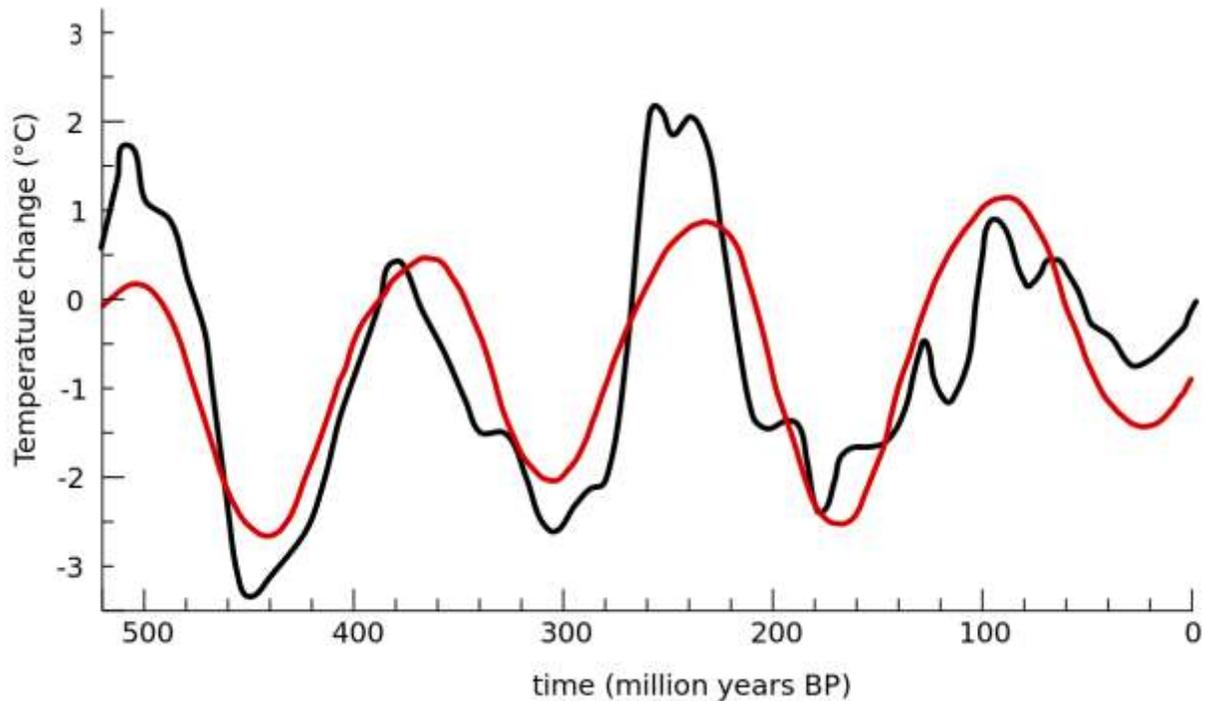
Ironically, this quadratic question of *knowability of knowledge* is not simply a so-called logology or theory of knowledge, and it has nothing to do with artificial intelligence or cybernetics; it is a willful *cautious probing* (*tâtonnement*) method of inquiry into the domain of discovery of principles as Lyn exemplified this process in his [\*Prometheus in Europe\*](#).

How can you look at yourself from the outside when you are on the inside? This question relates to the fourth subordinate point of view that Ampère is talking about. LaRouche called it Plato's hypothesis of the higher hypothesis. This effort requires that you look at yourself from the top down in a galactic manner as Benjamin Deniston suggested recently on some findings of Danish Astrophysicist, Henrik Svensmark, from a Geological Telescope for Studying Galactic Physics.

Deniston's remarks indicated that the process involved the understanding of the Galactic behaviour of cosmic rays including the electromagnetic fluctuation of the Sun's surface affecting the Earth's atmosphere in the formation of clouds. The point that he made was that it is the Galactic Cosmic Ray (GRC) flux-density which should be investigated as the plausible cause of climate change.



Energy Gamma Ray Experiment Telescope (EGRET) all-sky survey by Dr. Carl Fichtel and the EGRET Instrument Science Team.



Correlation between variations in cosmic ray flux (red) and change in sea temperature (black).  
CC SA 1.0, <https://commons.wikimedia.org/w/index.php?curid=5774917>

The above graphic by Svensmark, gives an example of this process affecting sea water on Earth. Svensmark's Galactic Physics study demonstrates how the lack of cloud formation causing global warming is concomitant with the lack of GCR. Svensmark gave a conceptual proof of experiment of this correlation between GCR and global warming at the Danish National Space Institute:

“To investigate the role of cosmic rays in cloud formation low in the Earth's atmosphere, the SKY experiment used natural muons (heavy electrons) that can penetrate even to the basement of the National Space Institute in Copenhagen. The hypothesis, verified by the experiment, is that electrons released in the air by the passing muons promote the formation of molecular clusters that are building blocks for cloud condensation nuclei.”  
(*The SKY experiment*. Danish National Space Institute. Retrieved 25 November 2008.) "During the last 100 years cosmic rays became scarcer

because unusually vigorous action by the Sun batted away many of them. Fewer cosmic rays meant fewer clouds—and a warmer world."<sup>22</sup>

This galactic climatology hypothesis appears to be the best current scientific explanation for climate change. My question is: Does the principle involved in the SKY experiment made by Svensmark express a quadratic correlation of GCR flux-density similar to the musical Lydian quadratic transformation? This doesn't mean that there could be a one on one curve fitting correlation. The question pertains to the domain of *Negative Epistemology*; that is, could the following 60 year variations in temperature variances be seen as something analogous to four GCR minor thirds of climate change?

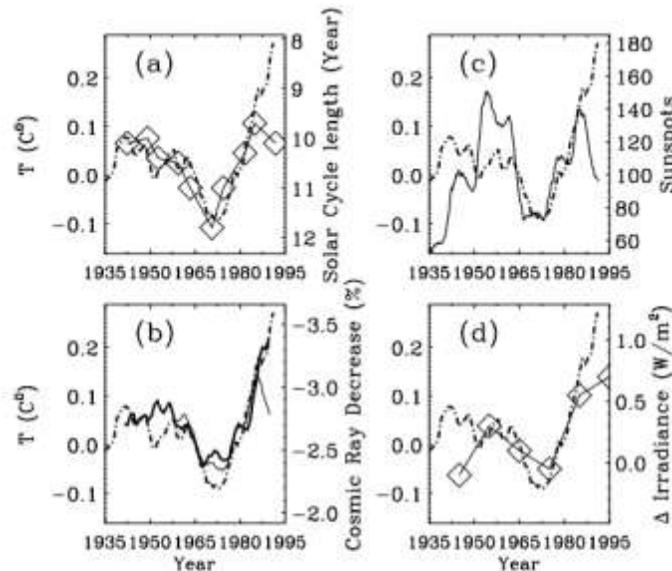


FIG. 3. 11 year average of northern hemispheric marine and land temperatures (dash-dotted line) compared with (a) unfiltered solar cycle length; (b) 11 year average of cosmic ray flux (from ion chambers 1937–1994, normalized to 1965), thick solid line; the thin solid line is cosmic ray flux from Climax, Colorado neutron monitor (arbitrarily scale); (c) 11 year average of relative sunspot number; (d) decade variation in reconstructed solar irradiance (zero level corresponds to 1367 W/m<sup>2</sup>, adapted from Lean *et al.* [6]). Note the 11 year average has removed the solar cycle in (b) and (c).

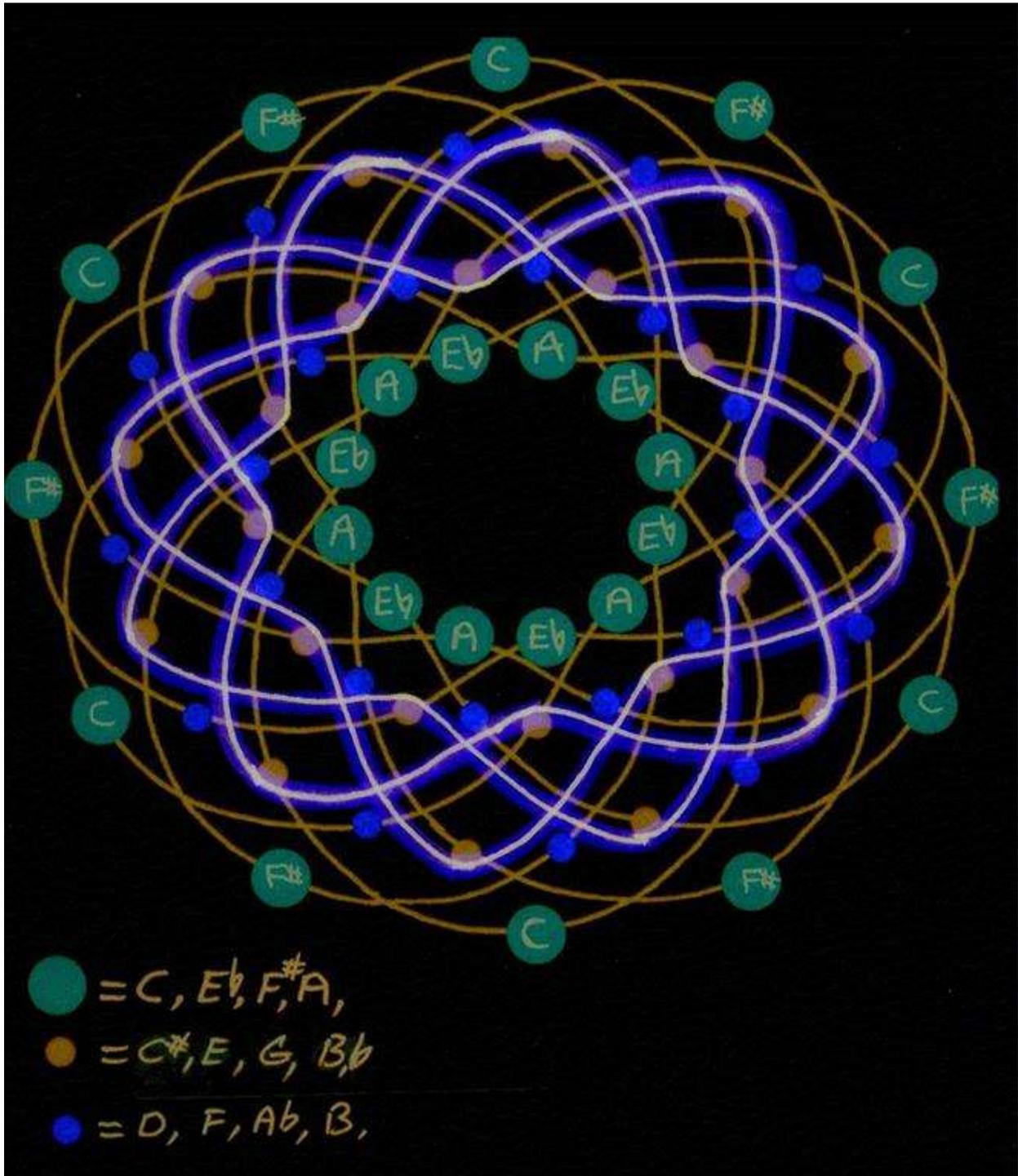
Henrik Svensmark, [\*Influence of Cosmic Rays on Earth's Climate, Physical Review Letters\*](#), November 30, 1998, p. 5028.

<sup>22</sup> [https://en.wikipedia.org/wiki/Henrik\\_Svensmark#cite\\_note-13](https://en.wikipedia.org/wiki/Henrik_Svensmark#cite_note-13). See also the report by Nir J. Shaviv &

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4      8      12      16      20      24

Exercise in Lydian self-transformation of C#,E,G,Bb generated by C,Eb,F#,A. Tempo rubato.



The three self-generating Lydian quadratics of the well-tempered musical system. C,Eb,F#,A is to C#,E,G,Bb as C#,E,G,Bb is to D,F,Ab,B in the same proportion as D,F,Ab,B is to C,Eb,F#,A.

### MARION ANDERSON LYDIANS

Marion Anderson "They Crucified my Lord"

They cru- ci- fied my Lord  
EGB F# ACDEb GBE  
(tonic)  
and he never said a mumblin' word. (repeat)  
F#BD EGBbC# DF#B  
(dominant)  
Not a word not a word not a word.  
GBE F#AC Eb GBE.

Hayes in d minor

They cru- ci- fied my Lord  
DFA EGBbDb FAD  
(tonic)  
and he never said a mumblin' word. (repeat)  
EAC DFAbB CEA  
(dominant)  
Not a word not a word not a word.  
FAD EGBbDb FAD

MARIAN ANDERSON in "[They Crucified my Lord](#)". Transcribed for me by Fred Haight.

As Leibniz demonstrated in his idea of *Felicity*:

“*The place of others* is the real point of perspective in politics as well as in morality. And the precept of Jesus Christ of putting yourself *in the position of others* does not serve only the purpose of which our Lord speaks; it is first applied to morality, to know our duty with respect to our neighbor, but also it is applicable in politics, in order to know the views that our neighbor may have of us. One never gets a better entry point [into someone else's mind] than when one puts oneself in the place of others, or when one becomes an advisor or minister of state of a suspicious or enemy prince. One then internalizes what he could be thinking and be undertaking, and what one might advise him.”<sup>23</sup>

### **CONCLUSION: HOW CAN A SPHERE BECOME TRANSFORMED INTO AN ELLIPSOID?**

In conclusion, construct the following pedagogical thought-experiment. Imagine the principle of cell growth in a living process as expressed by Cusa's minimum-maximum Isoperimetric Principle and apply it to the formation of a sphere in the spirit of Kepler's idea of the *Filioque*; that is, where the Father is the center, the surface is the Son, and the relationship between the two is the Holy Spirit.

Somehow, during the creative transformation of the universe, a certain amount of influx gets ingested into an active droplet inside of the primordial soup where a triply-connected geometrical process of change takes place through which the influx of that spherical droplet becomes proportional to its surface area as the amount of efflux between the center and the surface of that sphere becomes proportional to its volume area. The quadratic proportion formed by *this is to this* as *that is to that* is how the whole process of change modulates itself harmonically and holds itself together. Then, the whole process goes through an axiomatic singularity.

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<sup>23</sup> G. W. Leibniz, *Textes Inédits*, Volume II, d'après les Manuscrits de la Bibliothèque provinciale de Hanovre, publiés et annotés par Gaston Grua, Tome II, Presses Universitaires de France, Paris, 1948, p. 700. (Translated by Pierre Beaudry)

The original quadratic proportionality of this triply-connected isoperimetric process of transformation grows to become a sphere which, after a certain amount of time, becomes unstable and, after new molecules have penetrated it, becomes transformed into an ellipsoid. The sphere becomes unstable and elongated to the point of generating two new foci centers. Geometrically speaking, what takes place is an “impossible” axiomatic transformation which goes from the spherical to the ellipsoidal, through the division of the power of two, as 2,4,8,16,32,64,256, 512, etc; but which is also accompanied by a non-linear axiomatic transformation between the non-living and the living. Note that I didn't say “from the non-living to the living.”



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The ellipsoid of the droplet keeps expanding until two centers begin to form two smaller spheres inside of the original one and between which the proportional volume begins to pinch the middle of that original sphere, breaking it into two daughters. The question which arises, here, is where does this Lydian-isoperimetric principle of division come from? Where does the music of the “droplets of life” come from? Does it come from the non-living soup or from some higher source?

This is a significant non-linear singularity which biologists have been confronted with for quite a number of years, and the answer is still a mystery.

For David Zwicker and his collaborators at the Max Plank Institute for the Physics of Complex Systems and at the Max Plank Institute of Molecular Cell Biology and Genetics, both located in Dresden Germany, the answer is to be found in the heavens, in the fires of sunlight and in Galactic Cosmic Rays (GCR). As Natalie Wolchover reported on this discovery two years ago, “Zwicker discovered that this chemical influx and efflux will exactly counterbalance each other when an active droplet reaches a certain volume, causing the droplet to stop growing. Typical droplets in Zwicker’s simulations grew to tens or hundreds of microns across depending on their properties—the scale of cells.”<sup>24</sup> Dresden biophysicist Professor Frank Jülicher confirmed this hypothesis about his student’s discovery: “In the context of early Earth, sunlight would be the driving force.”

This reaching out into the fires of the heavens was also what made Krafft Ehrlicke hypothesize that photosynthesis, rather than the ape, was the origin of man, because he dared to look into what he did not know. There are a lot of things we don’t know; but we don’t know them because we don’t dare investigate what might be the significance of their not being known. Why not risk foraging beyond the limits of what we do know and find out what there is to know about what we don’t know we know?

FIN

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<sup>24</sup> Natalie Wolchover, [HOW DID LIFE BEGIN? DIVIDING DROPLETS COULD HOLD THE ANSWER.](#)