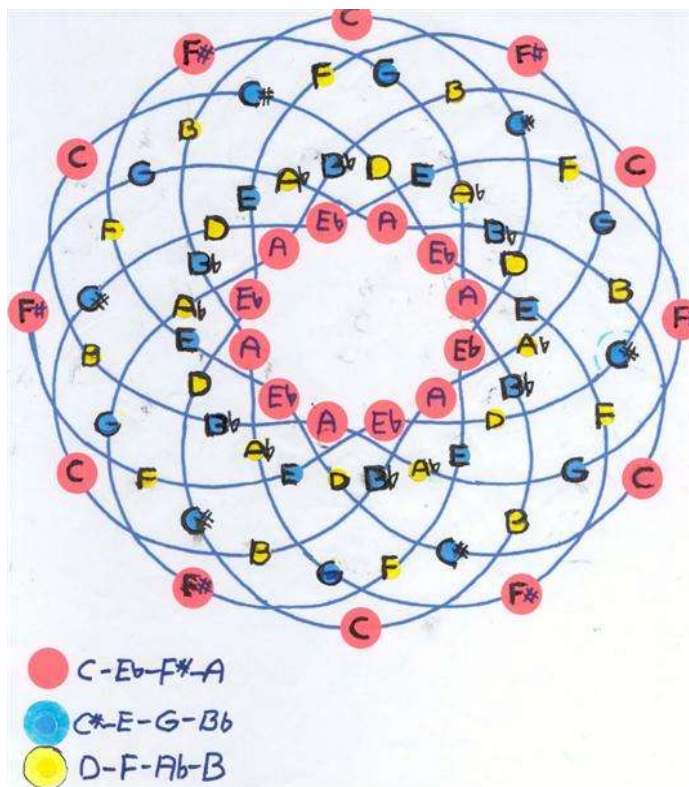


THE LEAST ACTION PRINCIPLE OR, HOW TO INCREASE YOUR ENERGY-FLUX-DENSITY

By Pierre Beaudry, 10/10/16

INTRODUCTION



In my recent report, [KEPLER'S SOLUTION TO THE CREATIVE PROCESS](#), written in light of Lyndon LaRouche's Sept., 1987 paper on [The 'Strong Hypothesis' of Biophysics](#), I proposed that we take the model of the least action principle based on the domain of the well-tempered musical system of J. S. Bach, and that we apply Bach's Lydian method of problem solving everywhere in the universe as a whole; that is, in the microcosm as in the macrocosm. (Figure 1)

Figure 1 Lydian interval divisions of the octave in the well-tempered clavier: the principle of changing keys, a new form of measuring in the universe; the Bach Measure. Play the following three key-changes on the key-board and discover how this new form of measuring works: 1) A,C,E^b,F[#] → G-C-E-G; 2) G,B^b,C[#],E → F-A-C-F; 3) F,A^b,B,D → C-D-G-C. That's the entire Lydian least action system in a nutshell.

The requirement for such a hypothesis, however, does not imply that you find some look-alike, or sound-alike, application in the small or in the large; it implies that the axiomatic characteristics of the change be congruent within three Lydian intervals. Such are the dynamics of the Peace of Westphalia, whose purpose is to increase the energy-flux-density of human society as a whole. Such a change as expressed by Bach, as the dissonant problem solver of the musical key change, must be the chosen means for all cases. In other words, if you cannot solve the dissonance of a three-body problem anywhere in the universe, it means you are living in the wrong universe.

So, the question is: “How does the increase in energy-flux-density get reflected through the harmonic least action proportionality between the microcosm and macrocosm of our universe?” This is how Cardinal Jules Mazarin put it to the Ambassador of the Netherlands in 1648: “*You will have peace in the Netherlands when you eliminate the differences between France and Spain.*” Think of it as the process of triply-connected transformation of an axiomatic change among three entities within a common process.

In terms of living processes, the question is: “How does the constructive geometry of the metabolic process of change between the total volume of cells in a given growing body, and the metabolic process of change inside of each single cell, become a reflection of the process as a whole?” In terms of thinking processes, the question is: “How does a mental process of change generate a continuous function which applies to the triply-connected microcosm and macrocosm?” How can you solve such dissonances unless you are continuously showing how to change keys between the Geosphere, the Biosphere, and the Noosphere?

The irony is that the answer to these questions lies in the science of economics; that is, in *the least action principle which generates a maximum amount of work from a minimum amount of labor*. However, the minimum amount of labor does not come without a certain amount of pain. It has to go through a paradoxical state of transformation, like the Passion of Christ and the denial of Peter: See my report: [REMBRANDT, THE DENIAL OF PETER](#).

In his 1987 memorandum on [The 'Strong Hypothesis' of Biophysics](#), Lyn began his paper by laughing at himself on the subject of his “ignorance.” He pointed out that the one single principle that he had discovered as necessary for solving any problem in the universe was his “laziness.” No doubt he was saying that in order to shock us out of our complacency, but he also meant every word he said, when he stated:

“The human mind was designed to be a universal tool, so simply constructed that even a new-born infant might employ it efficiently. The mind was therefore most ingeniously contrived to operate according to but one single principle. This tool, thus devised, can solve any problem confronting us in the universe as a whole. Wisdom is thus the state of ignorance achieved by knowing nothing not produced by means solely of this single elementary principle of mental simplicity and laziness termed an intelligible principle of least action.” ([LYNDON LAROUCHE, THE 'STRONG HYPOTHESIS' OF BIOPHYSICS, 1987](#), p. 1.)

No doubt, Lyn was thinking about his old friend, Nicholas of Cusa, and his “*De Docta Ignorantia*,” when he wrote that, but, he was not saying that it was going to be easy to learn how to become properly ignorant. The point he was making was that it is hard to be humble once you have convinced yourself you know something.

1. THE ACHILLES HEEL OF THE CURRENT SCIENTIFIC METHOD

The key idea that Lyn developed in his memorandum was how to teach the principle of least action as the only subject worth teaching to anyone. Why? Because, as he put it: “Working long and hard, with total concentration on one’s lazy ignorance of anything but least action, is the pathway to great productivity.” (p. 2)

So, how do you do that? How do you discover the secret of this hard work? How do you make such hard work so easy to do that, once it is done, you can only remark: “*That’s all there was to it? That’s all I had to do?*”

However, this cannot be done simply by imitation; you cannot simply go through the motion and play the role that appears to be required of you. You have to actually relive the principle in such a way that it actually improves your mind by improving the mind of someone else. The simplest expression of this is found in the commitment of a father to his son. How do you make the next generation better than your own? In the public domain, that’s known as the process of the Peace of Westphalia. However, the solution is not as easy as it seems. Take the case of the Great Elector of Brandenburg for example.

On April 7, 1659, eleven years after signing the Treaty of Westphalia, the Duke of Prussia and Elector of Brandenburg, Frederick Wilhelm, known as the “Great Elector,” wrote to Cardinal Jules Mazarin a very revealing letter describing his state of mind with respect to the Principle of the *Benefit of the Other*. He wrote:

“If my ancestors have followed these maxims that the interest of the other Princes is preferable to one’s own States, I must admit that I disagree, because in my own conscience, I consider that I am obliged to defend the territories I possess thanks to God, and in doing so, I don’t know how I can reasonably be blamed for doing anything wrong.” (Albert Waddington, *Recueil des Instructions données aux ambassadeurs et ministres de France depuis les traites de Westphalie jusqu’à la révolution française*, Felix Alcan, Paris, 1901, p. xxv.)

Indeed, the principle of “Charity begins at home” may appear to be unshakable. Who could ignore all of the dangers that surrounded the territories of the Elector of Brandenburg? The menace was like four Lydian dissonances that the Grand Elector had to solve.

To the North there were the threats of invasion by the Swedes and Danish, to the South the constant threat of losing sovereignty for the benefit of the Austrian

Empire, to the West there were the unending duals between the Bourbons of France and the Habsburgs of Spain, and to the East there were the great games for the domination of the Baltic Sea between Poland and Russia. How could the Great Elector manage to have peace among all of those diverging neighboring interests and keep the security of his own territories at the same time? Who, indeed, could have the impudence of asking of him to offer his God given interests for the benefit of other Princes? Only Jules Mazarin.

This is where the difficult part of the challenge comes into focus. The difficulty is that once you have taken up that challenge, you have to start unteaching what you already think to be true; that is to say, you have to purge yourself of all of the axiomatic aspects of *discreteness* and *linearity* that you have already accepted as being the basis for acquiring true knowledge.

The reason why Lyn questioned these conditions of *discreteness* and of *linearity* is because they have been taken for granted throughout the Western World ever since the death of Leibniz and the hegemonic take-over of the scientific method by the Newtonian-Cartesian traditions. Therefore, Lyn called for the following epistemological change in his new hypothesis of the higher hypothesis:

“In other words, in the definition of a "point," in each and every deductive system, the "point" in space or time has the attributed <quality> (<property>) of being infinitely divisible, without limit; whereas <substance>, or <matter>, cannot be subdivided without limit. <Matter> can exist, according to such species of axiomatic assumptions, only to the degree that there is a limit to our assumed ability to subdivide it into smaller portions. <Matter> can be reduced, it is assumed, only to some definite, smallest degree, which latter is assumed to be the <elementary> state of existence of <matter>.

“In all deductive systems, all of the possible properties of <matter>, or <substance> are derived deductively from the bare, axiomatic assumption of the self-evident equivalent of <matter> to <discreteness>. If the proponents of the method do not themselves argue for the existence of such a connection, it can be shown, nonetheless, that those proponents have

unwittingly adopted such an assumption as a hereditary feature of all applications of that method.

“Thus, in all deductive method, <percussion action> and <action at a distance> are the only forms in which events can occur within abstract, linear space, and abstract, linear time. These two <properties> of <discreteness> are expressed as a single property, in the deductive method's notion of <force>.

“For this reason, all deductive method is, intrinsically <linear>, and false to reality on that account.” (p. 6.)

Thus, the following *Achilles Heel* of the scientific method: If you can't see it, smell it, pull it, and push it, there is every reason to doubt its existence as a scientific object, and it can only exist as part of a three-body problem.

2. THE US CONGRESS VICTORY OVER OBAMA: WHAT A MINIMUM OF COURAGE CAN DO TO CHANGE THE WORLD

The present world strategic situation is much like the aftermath of D-Day, June 6, 1944, when the satanic enemy of mankind expected Patton in Calais, and, instead, got Bradley in Normandy. They didn't know what hit them until a few days later, because they were too arrogant to believe that they could be outsmart and beaten by the moral force of a few world leaders. They saw things coming where they expected them to come; that is why least action fooled them.

The same thing is happening all over again, today, where the Satanists around President Barack Obama are too arrogant to realize that they have received a deadly blow to their pure evil operations by LaRouchePAC and the 9/11 survivors and families who are demanding the right to sue the Kingdom of Saudi Arabia in U.S. Federal Court for their authorship in that terrorist act.

The victory of the US Congress in repudiating the Obama Veto of the Justice Against Sponsors of Terrorism Act ([JASTA](#)) on Sept. 23, 2016, with the Senate vote tally of 97-to-1, in favor of override; and the House of Representatives tally of 348-to-77, is the clearest victory of Morality over Satanism since the end of World War II. The US Congress succeeded in solving a crucial difference between President Obama and the American people. (**Figure 2**)



Figure 2 The passage of, [JASTA](#) on Sept. 23, 2016.

The fact that such a decision took place 70 years, almost to the day, after the judgment at Nuremberg (October 1, 1946) is a historical reminder that the world has not forgotten that morality must rule history, not revenge of winners over losers.

And, now, the game is over for the British-led Satanist movement worldwide. They will need a few days to realize what the Europeans are going to do in reaction to this new situation, especially the Germans and the French; and then, they will react, stupidly again, and proceed to ultimately destroy themselves. As Lyn put it:

“A historic victory. It is a cause for rejoicing; it has turned the pages of history. The worldwide positive potential is enormous. However, how far and where it takes us, is not yet clear. Get ready to find out. This will be going to France, Germany, everywhere, how these things work out will be very important to make clear.... Remember, you've hurt the devil hard. And the devil ain't going to thank you for that!”(Lyndon LaRouche, *Morning Briefing* for 9/29/16.)

The question is: “What is the World Satanic Movement (Synarchy) going to do now? What are they capable of doing out of pure desperation? What can they do when a US Congress and an American people are no longer terrified of Obama’s satanic operations?”

The irony, here, is that it is the moral function of the principle of least action which provided the people of the United States with such a victory. Schiller would have called it “...the function of the Good Samaritan.” If you attribute the victory to something else, you are wrong, because the morality of the Good Samaritan is the only non-Newtonian force that is capable of determining a maximum amount of work with a minimum amount of effort, even at a distance. The next step, in the same continuous motion, needs to be the Congress reinstating the Glass-Steagall Act. That will be [The End of Wall-Street](#).

It is the demonstrative moral value of this decision by Congress which will affect the change in the people of the United States and all of the peoples across the world, because it is the morality of such a decision which is able to affect everyone in the fastest and most effective way possible. Nobody will remain unaffected by this action of only a few. As Lyn put it:

“When you've got a victory, like the kind of victory that we've just registered this afternoon; when you get a victory like that, which is of such demonstrative values, this is something that affects everybody. Therefore, it's going to go throughout the world; it's going to go out through Eurasia in particular, so it's going to go throughout the world. The question is, what the anti-reaction to what the positive action is, is something we have to look for. They will be desperate; but they will also be terrified in isolation. They

may want to think about where they're going to run; and how they're going to run. We have the alert.” (Lyndon LaRouche, *Morning Briefing* for 9/29/16.)

The mistake that people will tend to make, however, is that they will identify the Saudis as the enemy. That is wrong. The enemy is Worldwide Historical Satanism, of which the Saudis are only a part. What you are looking at is the same type of British-run Satanism that came out of the French Revolution under Martinist-Synarchist, Joseph de Maistre, who was the policy writer and defender of hierarchical societies under a monarchical rule. See my reports on the Synarchy: <http://www.amatterofmind.us/synarchy/synarchy-i-ii/>

These are the forces that we have not been able to eliminate with the French or the American revolutions and that we have to fight and destroy, once and for all, today. That's who the enemy is, and that is what is now beginning to crumble with this [JASTA](#) vote. As Lyn further noted:

“You're up against a very evil force, and a very powerful force. Despite what, on the one hand, this registration of this vote today, despite the appearance, what is happening is, you have actually set into motion, a threat. A threat beyond anything you've ever seen before; because they are in extreme desperation. Therefore, we've got to be very much alert. It can be a physical one; a physical one interjected by a relatively small numerous force to counter against what we achieved this afternoon. You've got to think of that. Mechanical and similar kinds of threat factors can be used beyond the will of the people.” (Lyndon LaRouche, *Morning Briefing* for 9/29/16.)

However, this can take place only with a further increase in the stress of the moment of victory where people don't sit on their laurels, but go for the next step in the process, which is to reinstate Glass-Steagall legislation. This is how you inject the increase in energy-flux-density that is necessary to get the job done. As Lyn concluded:

“In the short interlude between the beginning of what we've started here and what we're concluding right now, it teaches us. So that in those intervals, people learn the most; particularly under conditions of stress. When people can win under conditions of stress, and rejoice for the fact that they have done that, they have a certain amount of increased ability to get out there and get the job done. In the meantime, let's make the people happy; because they've done something, they've won something, they've had a victory. We don't want them sitting around despondently in doubt and so forth. We're going to face problems which are unknown to us presently in part. Therefore, we'd better just be alert and make sure that we are ready to meet whatever we suspect is going to be coming at us right now. Let's have a little bit of fun about it, too. Because there's a good reason for rejoicing in the election process there. Give them their credit; congratulate them for their accomplishments. And now, dig in for a tough fight on a new basis.” (Lyndon LaRouche, *Morning Briefing* for 9/29/16.)

3. HOW LEAST ACTION WORKS PERFORMATIVELY

The mechanism of least action is not something that most people are conscious of, because most people don't realize they are losing it, when they don't use it. And, the more you lose it, the more difficult it is to get it back. Although most people have had the opportunity to use least action all of their lives, without their realizing it, it should not be difficult to realize how its mechanism operates when they think about how faulty their own thinking process has become. The main thing to be made conscious of is that its mechanism is a performative form of self-reflective realization which makes you realize: “*That's all I had to do?*”

The way that Lyn explained the process of least action is by comparing it with the process of a force-free transfinite motion; that is, by eliminating all notion of “force” acting upon a discrete object; either from the inside or from the outside of that object. Think of this process as being similar to the transfinite transformations of the three main sections of Dante's *Comedia*. The triply-connected process of elevation of the soul in each of the three sections of the

Comedia reflects an ordering-principle of least action which culminates in the last Canto of the Empyrean as a hypothesizing of the higher hypothesis of the three sections as a whole. In other words, the last Canto XXXIII incorporates the self-generating causal function of the whole by being within and above itself at the same time. (See **Figure 3**)

*“O Light Eterne, sole in thyself that dwellest,
Sole knowest thyself, and, known unto thyself
And knowing, lovest and smilest on thyself!*

*That circulation, which being thus conceived
Appeared in thee as a reflected light,
When somewhat contemplated by mine eyes,*

*Within itself, of its own very colour
Seemed to me painted with our effigy,
Wherefore my sight was all absorbed therein.*

*As the geometrician, who endeavours
To square the circle, and discovers not,
By taking thought, the principle he wants,*

*Even such was I at that new apparition;
I wished to see how the image to the circle
Conformed itself, and how it there finds place;*

*But my own wings were not enough for this,
Had it not been that then my mind there smote¹⁴⁰
A flash of lightning, wherein came its wish.*

*Here vigour failed the lofty fantasy:
But now was turning my desire and will,
Even as a wheel that equally is moved,*

The Love which moves the sun and the other stars.”

(Dante Alighieri, [The Divine Comedy](#))

This is one of the most difficult things to accomplish for someone who has been trained in the deductive Euclidean method of reasoning, because the operating mechanism of least action is not a push-me-pull-me force of action and reaction, it is a force-free motion. It is a *trinity function*; that is to say, an integration of the threefold-circular action reflecting the Holy Trinity. In other words, as Einstein put it: "God doesn't shoot pool."

The test, therefore, is to eliminate from your mind the underlying assumptions of "*discreteness*" and of "*linearity*" which you tend to append to everything you know; that is, eliminate the "thingness" of what appears as a self-evident finished product to your sense perception, which gives it the self-evident "mathematical value" of a whole number that appears to the mind as a perfect measure for it. Those are two of the most devastating fallacies in science today.

The problem is that it is the mathematical value of such "*discreteness*" and "*linearity*" which preclude any possibility to solve the problem. Since the introduction of least action is the solution to a high density of non-linear singularities, there is no possible way of looking into mathematics for a solution to the problem, because no mathematical equivalence could ever bridge such discontinuities between dimensionalities taken two by two. As Lyn demonstrated, it is the fallacious entertaining of those two assumptions in the minds of students by University professors, which prevents creativity from being unleashed in science today. As he put it:

"In physics today, we are cruelly burdened by the popular assumption, that "physically elementary" is signified by that which is primitively countable arithmetically, and the presumed elementarity of linearity. Hence, the notions of physical laws are stated in terms of scalar (discrete) magnitudes, together with linear notions of space and time. This is a cruel burden, since all truly elementary statements are non-linear propositions in the Gauss-Riemann complex domain.

“It is this mistaken approach to representation of fundamental and other physical laws, the which prevents such a mathematical physics (or, biophysics) from rendering intelligible such elementary notions as "creation" and "life." It is this which causes the actuality of "creation" and "life" to fall between the cracks of statements in acceptable forms of deductive logic, and of a mathematical physics defined formally in terms of a deductive logic. The axiomatic assumption of discreteness and linearity is the vicious root of these formal difficulties; without eradicating these complementary, axiomatic assumptions of all deductive systems, a valid astrophysics, microphysics, and biophysics is impossible, in each and all cases.”
[\(LYNDON LAROUCHE, THE 'STRONG HYPOTHESIS' OF BIOPHYSICS, 1987, p. 14.\)](#) F

Then, how do you solve that axiomatic problem? Why is the human mind so tempted by the self-certainty appearance of “*discreteness*” and “*linearity*”? This takes us back to the question of the mind’s laziness. Why is the mind tempted to take such an easy way out? Why is it that if it looks good, it must necessarily be good? What is missing here? Lyn explained:

“The solution is most simply represented by the statement, that discreteness and linearity are brought into existence within the discrete manifold by that multiply-connected form of continuous least action which is axiomatically neither discrete nor linear. Hence, the mere existence of discreteness or linearity is a product of "creation" so defined: the generation of true singularities by an adequately defined notion of continuous function. On no less a basis than this correction, can either "creation" or "life" be rendered intelligible.” [\(LYNDON LAROUCHE, THE 'STRONG HYPOTHESIS' OF BIOPHYSICS, 1987, p. 15.\)](#)



Figure 3 Gustave Dore, Dante's *The Divine Comedy*, Canto XXXIII.

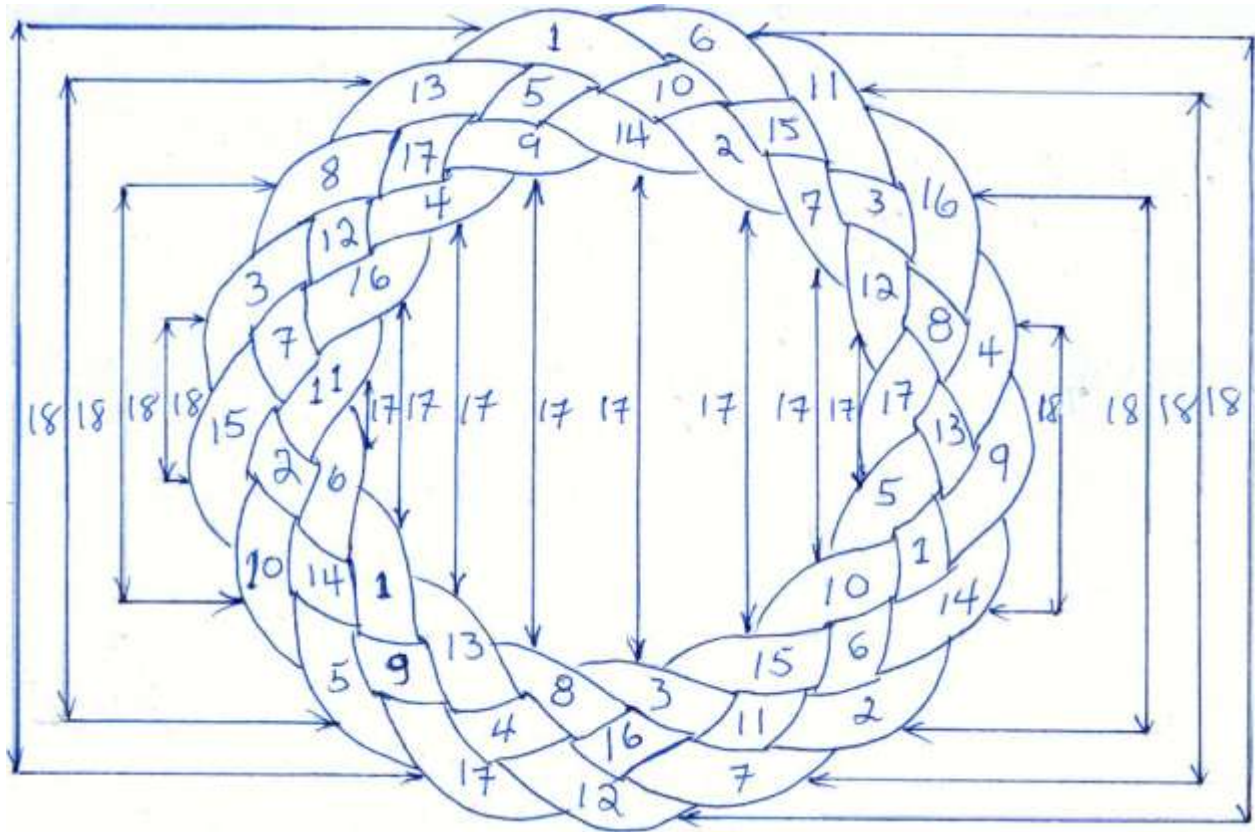


Figure 4 Imagine the self-generating space-time calendar cycle of a living system organized according to the least action pathway of a torus whose triply-connected-least-action process rotates and grows into periodicities of 4 hours a day, 4 days a month, and 17 months a year. Note the application of the Gauss biquadratic-reciprocity in all of the actions moving clockwise. Then, rotate the whole thing inside of a galactic motion.

In point of fact, since “*discreteness*” and “*linearity*” are such remote by-product effects of the creative process, they can barely account for where they come from; they are mere shadows of what can only be mistaken for what caused them to exist. We can only read the truth of their having been created through the distorted traces that multiply-connected least action has left behind in passing through. In other words, “*discreteness*” and “*linearity*” are merely the sum total of the shadows left behind as the conformal footprints of least action projected onto the dimly lit wall of Plato’s Cave. Numbers, then become mere epistemological

prints of such a passing, not the mathematical shadows of things. And, these traces are as remote from the creative process that produced them as the least action form of complex spiral action that created them is axiomatically remote from simple circular action. Take from the Riemann arsenal the least action case of the torus and apply it to a planet in a Solar System. You will understand the principle of least action if you consider that it is the pathway which generates the planet, not the planet which generates the pathway.

The values attributed to 4 and to 17 are obviously unexpected traces of different dimensionalities. How can you order the least action process of such a continuous doubly-connected time function and resolve such unexpected discontinuities among your choice of numbers? The answer can be found in the least action principle of congruence of the Peace of Westphalia, which is the same as the Gauss congruence generating continuously biquadratic residues in the clockwise series of 4,16,13,1. (**Figure 4**) It is by inversion of the whole process of war into peace that the solving of the differences between warring parties becomes the pathway to the future; that is, through breakthroughs in the *win-win principle* of Xi-Jinping. In other words, all of the residues are transformed into new wave-powers for the next future step. However, you can only prove this to be true by constructing it yourself.

The whole question of an orbiting-rotation becomes: How do you identify the different dimensions and how do you map how many dimensions of circular action must be investigated in order to solve the differences of that solar system? Once the fallacies of “*discreteness*” and “*linearity*” are taken out, and the dissonances are adequately resolved from the vantage point of Bach’s epistemology, ask yourself if there is a need for any other type of mathematical notion of a continuous function for generating higher densities of singularities.

The reason why this process of least action works by enhancing your creative powers is because it takes you to the underside of things, like the Chinese challenging the unknown on the backside of the Moon, where *discreteness* and *linearity* flow away into the galaxy like all war-like ideas down the river of iniquity. That’s the only so-called “black-hole” to be considered in the universe.

CONCLUSION

So, this least action process accomplishes its work through a performative function of causing the change to take place in the mind of the reader as a matter of course. And, the beauty of the proof lies only in the fact that it works. As Lyn concluded by making the appropriate corrective for the benefit of Dr. Webb:

“So, rather than attempting to account for the existence of apparent or actual <force-free> states from the standpoint of 'classical physics,' we treat <force-free> states as the ground- states of matter, in which the laws of the universe are most proximately manifest, and derive the existence of conditions appearing to exhibit <force> from the <force-free> states of matter. We accomplish this in the only way this can be managed, by treating the physical geometry of the Gauss-Riemann domain not merely as a method, but as a direct representation of the physical composition of cause-effect in the universe.” (p. 13.)

Thus, it is in the application of such a conformal mapping of change into the human mind itself that the Gauss-Riemann geometry succeeds in appropriately applying its object of study; because it is only by such an application that one can witness such a change take place in the universe as a whole. Your mind is the proof in the pudding. Try it and prove it to yourself.

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