# THE WIN-WIN RECIPROCITY PRINCIPLE OF THE PEACE OF WESTPHALIA

A more elaborated axiomatic puzzle on immortality and on the fallacies of senseperception in honor of the fiftieth anniversary of Lyndon LaRouche's EIR magazine

Pierre Beaudry, 5/5/2024

#### **FOREWORD**

In the conclusion of the present report, I have included a hypothesis regarding what Lyndon LaRouche had been investigating as the projection of a geometrical distribution of prime numbers, which he had identified at the end of an article originally published 43 years ago and which was republished in his honor last week in EIR under the title: The Function of Teaching of Grammar as a Crucial Element of Military Policy (larouchepub.com).

LaRouche's subject matter may appear to deal with numbers and grammatical considerations, and it might even have some meaningful mathematical significance; but, that is not what the subject matter is about. The subject matter concerns "singularities of real processes" (p. 42.) in which the ordering of numbers represents a "geometrically-determined" moment of preestablished reciprocity in *temporal-eternity* similar to what is required for understanding the axiom busting significance of the universal value of the 1648 Peace of Westphalia.

#### INTRODUCTION

"The religion natural to men, which this year brought this innumerable throng to Rome and brought you a philosopher to extreme wonder, and has always appeared in the world in a diversity of ways, demonstrates that our mind's immortality is our natural endowment. The result is that the immortality of our

mind is known to us from the common undoubted assertion of all people, just as is the humanity of our nature. For we have no more certain knowledge that we are human than that we possess immortal minds, since knowledge of both is the common assertion of all men." Nicholas of Cusa, *THE LAYMAN: ABOUT MIND*, Abaris Books, New York, 1979, p. 93.

If you try to construct an image of how your mind works, beware of the trickeries of sense-perception and of authoritative thinking on the matter. This is the warning that Lyndon LaRouche gave the LaRouche Youth Movement (LYM) in a video broadcast presented originally on March 7, 2012. LaRouche warned against the type of sense-perception traps that are discussed in this report.

The danger to be avoided is the temptation to assume that sense-perception provides your mind with easy and simplistic forms and conceptions about how your mind works. The risk here is not only of self-deception, but, of also deceiving others who are seriously attempting to investigate this matterofmind. LaRouche emphasized, primarily, the necessity to think for yourself and from the top down; that is, from the pathway of a higher hypothesis, which he explained as follows:

"So therefore, we have to say, first of all, you can not derive science from the bottom up: You can't start with mathematics, you can not start with various kinds of gimmicks. You've got to start from the top; you have to say, 'What is the universe?' What is the universe which created, or creates and incorporates these qualities which we recognize in the ability of mankind to create conditions that no other living form of life can do! That mankind typifies, in its expression, the nature of the universe. And typifies it, because it represents a power, which is the most powerful thing we know of in the universe! A principle of power, which we are beginning to understand, gradually, but which has always been there: That the universe is actually a creative process, run by a willful kind of process, which raises the level of the universe from a lower level to a higher level. And therefore, the attempt

<sup>&</sup>lt;sup>1</sup> See Manhattan Project of March 9, 2024, *From Hell to Paradise*.

to adduce science from sense-perception is the great idiocy which poisons the ability of the human species.

"We have to think in those terms: We no longer try to think in deductive, mathematical terms. Because in this [current] system, there is no principle. The deductive method in mathematics *does not lead us to any physical discoveries*. We use mathematics as a product of *sense-perception*, and are limited to the qualities of *sense-perception*. And sense-perception is the lowest form of life, in terms of thinking. Whereas the higher forms of life occur in the terms of creativity, and especially expressed in the specific quality of *human creativity*."

### THE LIMITS OF SENSE-PERCEPTION

Suggested reading list of four of my 2023 reports on the subject of *temporal-eternity*:

- 1. LYNDON LAROUCHE'S PRINCIPLE OF TEMPORAL ETERNIT Y AND PLATO'S PRINCIPLE OF ANAMNESIS, November 6, 2023
- 2. ANALYSIS\_SITUS\_AND\_TIME-REVERSAL\_CAUSALITY\_IN\_TEMPORAL\_ETERNITY, May 20, 2023
- 3. LOCATING TEMPORAL ETERNITY AS THE PHYSICAL SPAC E-TIME OF MANKIND, April 15, 2023
- 4. WHY\_THE\_DISCOVERY\_OF\_LYNDON\_LAROUCHES\_TEMPORA L\_ETERNITY\_IS\_THE\_KEY\_TO\_PEACE\_TODAY, March 11, 2023

### MOVING IN SPACE WITH SENSE PERCEPTION IS NOT REALITY

"The immutable truth of geometric figures is not found [drawn] on the floor but in the mind. When the soul investigates through sense organs, what it finds is subject to change. When it investigates through itself, what it finds is unchanging, clear,

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<sup>&</sup>lt;sup>2</sup> Lyndon LaRouche, Editorial, *The Science of Survival*, EIR, March 16, 2012, p. 55.

transparent, and fixed. So mind is not of the nature of changeable things, which it attains unto by means of the senses; rather, it is of the nature of invariable things which it grasps by sense perception, but of unchangeable things which it discovers in itself." Nicholas of Cusa, *THE LAYMAN: ABOUT MIND*, translated by Clyde Lee Miller, Abaris Books, New York, 1979, p. 91.

Why is it that when you move around in space, you always have a choice of six different directions up or down, right or left, and back or forward, while whenever you move around in time you can only move in two directions (forward or backward)?

What is preventing your mind from experiencing time in six different directions as sense-perception does in space? Why is there such a difference in directionality between space and time? Which of these six directions correspond to reality? A cognitive jump is required, here, because what is involved is not just a matter of geometrical language; there is something unique about the human mind's ability to move like time in only two directions, forward and backward. Why is time apparently more restricted than space with respect to the human mind? Could it be that it is because time is the natural way the human mind unfolds from eternity?

Imagine that you are standing alone in empty space: how can you tell where you are? You don't know; all you can say is: "Here I am." But, you don't know where that is; and you don't know whether you are moving or not, unless you have something besides you from which you can measure your motion. See Figure 1.

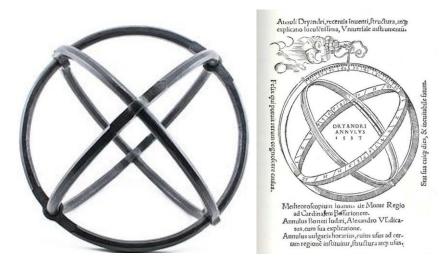


Figure 1. Three ring sphere: Diagram of Astronomical rings (Johannes Dryander, 1537.) <u>three ring spheres Dryander - Google Search</u>

For example, Figure 1 shows that you can imagine "visual" space from the vantage point of three closed boundary lines of circular action intersecting each other at right angles, up and down, right and left, and forward and backward, and that all of those six intersections are at the same distance from you and crossing each other at right angles, two by two. Only when you are moving within such a three dimensional space frame can you know where you are or what direction you are taking. Is that giving you a sense of reality or is that merely an illusion? This is not reality; this is only perception!

### MOVING IN TIME WITH YOUR MIND IS REALITY

On the other hand, imagine that you are located in time: How do you know if you are in time or not? You don't know anything unless you are in motion, because time is the measure of change and of motion in any directions. You can only know you are in time when you are walking forward or backward. You can illustrate such a motion if you create some geometrical pathway which expresses your changing motion, which can go anywhere in two directions. Figure 2 shows how such a movement can be illustrated as the measure of motion and change in two directions at the same time; that is, in the *simultaneity of temporal-eternity*.

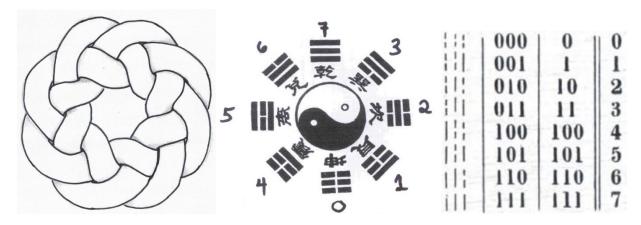


Figure 2. Biquadratic reciprocity, the Fu Xi Trigrams of *I Ching*, and Leibniz's binary code.

Figure 2 represents the two directionalities of the motion of time, forward to the future and backward to the past at the same time, that is, only by understanding power of reason. For this reason, Figure 2 may be considered as an appropriate pedagogical device able to express reality as the domain of *temporal-eternity*.

In Figure 2 the Chinese eight trigrams (center) are the oldest illustrations of time-change (with clockwise and counterclockwise motions) in the history of mankind, and yet they are mostly misunderstood as an astrological gimmick. However, the numbers which are attached to them show that the trigrams are more than a gimmick, as Leibniz's figure shows (right). Leibniz's figure is also expressed by the left geometrical module showing a series of eight poloidal waves spiraling around a torus, whose workings I will explain later with Figure 3. This doubly-connected-spiral-action, which originally comes from a Leonardo da Vinci design, also hides an astonishing secret about the geometry of numbers in relationship with time: *All numbers are the unheard musical tempos of your thought processes simultaneously in whatever direction you move within temporal reciprocity*.

The figure in the center in Figure 2 is Fu Xi's trigrams from *The Book of Change (I Ching)*. The numbers on the right are Gottfried Leibniz's binary code interpretation of this Chinese model, and the torus module (left) is my own binary construction of a biquadratic to challenge the reader of today into investigating the

nature of what Lyndon LaRouche identified as the concept of *time-reversal in temporal-eternity*.

If, for example, the reader inserts into the left figure a series of whole numbers from 1 to 31 in such a way that each number expresses change by adding one unit of action after each step, while continuously moving forward, he will discover not only that all of the numbers have pre-established harmonic positions within the geometry of the torus, but that the pre-established harmony of numbers 15 and 31 reflect *the simultaneity of biquadratic reciprocity in temporal-eternity!* (See Figure 9.) What does that mean?

Such is the idea of proportionality in time that Lyndon LaRouche advocated, at least since 1996, for all creative thinking, and with respect to God's Creativity. LaRouche noted: "... I also emphasized the relevant, crucial role of Carl F. Gauss's treatment of the subject of 'biquadratic residues,' in constructing an adequate representation of any mathematical function which purports to address the implications of 'time-reversal.'" This is also the way in which Nicholas of Cusa described the nature of number from infinity, with respect to the human mind and in relationship to God's Mind:

"Philosopher: Continue by explaining how it is that the *soul is self-moving number*. (Emphasis added)

"Layman: I will do as best I can. I think that no one can fail to agree that mind is a certain living divine-number (1) that is very excellently proportioned for having an aptitude for reflecting the divine harmony and (2) that enfolds all sensible, rational, and intellectual harmony (and whatever else can be said more elegantly about this topic). [Mind is this living divine-number] to such an extent that whatever number, proportion, and harmony proceed from our mind resemble our mind as little as our mind resembles the Infinite Mind. For although mind is a divine number, nevertheless it is number in such a way that it is a simple oneness that of its own power

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<sup>&</sup>lt;sup>3</sup> Lyndon LaRouche, <u>The Essential Role of 'Time-Reversal' in Mathematical Economics</u> (larouchepub.com). EIR, Vol. 23, No. 41, October 11, 1996, p. 19.

produces its own numbers. Hence, that which the proportion of God's works is to God, the proportion of our mind's works is to our mind itself."<sup>4</sup>

This is a difficult idea to understand, but this is what I wish the reader to ponder in order to properly understand the idea of universal reciprocity as the crux of the principle of resolution of, for instance, the opposition of forces that led to the resolution of the 1648 Peace of Westphalia.

## THE MEMORY OF TEMPORAL-ETERNITY AS THE PATHWAY OF THE PEACE OF WESTPHALIA

Do not consider this process as counting numbers, but as walking in a manner such that the traces you leave behind are not mathematical integers but the footprints of your mind.

From this vantage point, the principle of the Peace of Westphalia is not only forgiving and forgetting for the benefit of the other, but also the pathway for achieving human immortality through reciprocity with the Christian conception of the Holy Trinity.

To understand this idea, you must make an axiomatic change in understanding the function of memory. The shocking idea of this change is that memory can no longer be conceived as a storage container which retains things from the past for you to dust off when you need to use them again at some future time. On the contrary, memory is the toroidal function of the mind which changes the past from the future, that is, which moves forward by time-reversal with a backward moving function of a mental clock that leaves behind the footprints of your passing through *temporal-eternity*. Let me explain this.

In Figure 3, the reciprocal of 0, number 15 is the harmonically preestablished number which expresses the simultaneity of your steps *throughout temporal-eternity*. If you continue the same process up to 31, without changing the direction of your increasing forward motion, then every number will be the reciprocal of 31, which will take you back to 1, within a strange paradoxical

<sup>&</sup>lt;sup>4</sup> Nicholas of Cusa, **<u>DeMente12-2000.pdf</u>** (jasper-hopkins.info), p. 556.

forward motion of *time-reversal*. That is how the creative process of memory works in *temporal-eternity*.

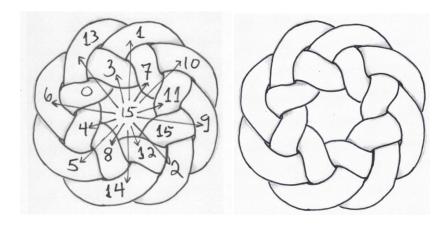


Figure 3. Toroidal memory function of biquadratic reciprocity in *temporal-eternity*.

The doubly-connected poloidal and toroidal module (Figure 3.) represents the best geometrical expression for the double directionality of time (past and future) as, for instance, a magnet with double-spiral action is a reflection of quadratic reciprocity (Figure 4.).

Start inserting numbers from 0 and move clockwise inside the torus of Figure 3. Your first number is 1 after one step. The second number is 2, two steps later; and, three steps later, insert number 3. Keep going like this until you have filled the entire torus.



Figure 4. Single and double-spiral action copper coils as natural magnets. Note the staples hanging from the two magnetized nails.

Surprisingly, this is the best modular model for expressing the transformation of war into peace; that is, by transforming simple circular action of geopolitical repulsive attitudes into doubly-connected spiral action of win-win reciprocity.

Furthermore, the torus has the appropriate *analysis situs* geometry for understanding human memory (Platonic anamnesis) because it has a *time-reversal* function. It is also able to express the motion of a planetary orbit, the complex *time-reversal* motion of double-Lydian intervals in classical musical composition, as well as the complexities of biquadratic residues that Carl Friedrich Gauss and Bernhard Riemann examined in their study of the complex domain. That should be sufficient for considering the torus as the most appropriate geometrical expression for the Pythagorean *Quadrivium* (Geometry, Arithmetic, Music, Astronomy).

Once you have discovered such a complex domain of space-time, you begin to realize that it is because you also have a higher cognitive form of mental activity which is a doubly-connected magnetic spiral action manifold moving in the two directions of foreseeing (forecasting) and remembering (anamnesis) within *temporal-eternity*. Remember what Plato said: "Seeking and learning are in fact nothing but recollections." <sup>6</sup>

This gives you the ability to differentiate mental processes of doubly-connected forms of spiral actions from visual sense-perceptions which are merely the results of triply-connected simple circular actions (Such as in Figure 1 and Figure 2). The point to emphasize, here, is that the doubly-connected spiral action of the mind is a superior manifold to the triply-connected circular action of sense-perception. The best geometrical proof of such a principle is the double-Lydian

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<sup>&</sup>lt;sup>5</sup> See Carl Gauss, *Theory of Biquadratic Residues Second Treatise*, Commentationes soc. reg. sc. Gotting. recentiores. Vol. VII. Gottingae 1832.

<sup>&</sup>lt;sup>6</sup> Plato, *Meno*, 81e.

spiral that Beethoven used, uniquely, in the First Movement of his Piano Sonata Opus 27, No. 2.7 (See figure 5,)

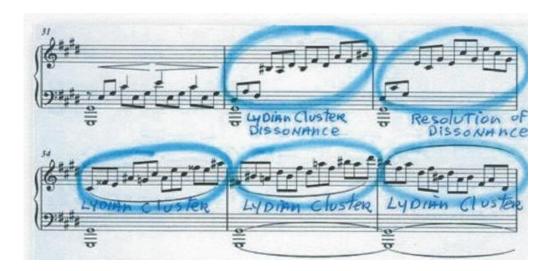


Figure 5. Double Lydian clusters of measures 32-36 of Opus 27, No. 2.

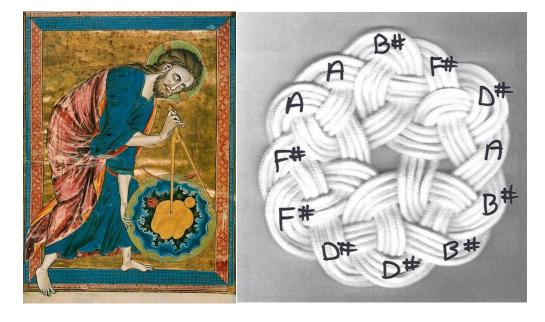


Figure 6. God as Architect/Builder/geometer/Craftsman, The frontispiece of Bible Moralisee.

<u>Great Architect of the Universe - Wikipedia</u>

<sup>&</sup>lt;sup>7</sup> See my reports: THE POWER OF SELF-GENERATING THE FUTURE WITH THE THREE MUSICAL LYDIAN PRE-ESTABLISHED HARMONIC SPIRALS-2.pdf (amatterofmind.us), and J. S. BACH AND THE KNOTTY GEOMETRY OF LYDIAN INTERVALS.pdf (amatterofmind.us).

Such a discovery of principle has the power to pull everyone together or to repel them geopolitically away from each other depending on the degree of romantic disposition that each individual has in clinging to a defective lower manifold.

An original artistic attempt at reproducing such a doubly-connected spiral action manifold is represented in Figure 6 by an unknown medieval artist. The first circular action is exemplified by God's compass creating a universe rotating on itself in sync with His second motion of pushing the rotating universe forward into the right side of the picture frame.

A different and more complex way of representing such a change in spacetime motion is with the process of transforming simply-connected circular action into doubly-connected spiral action. Think of this change as a transformation process of going from the geopolitics of war to the win-win reciprocity of peace.

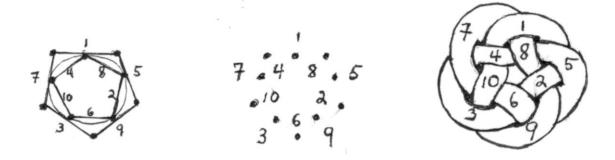


Figure 7. Two pentagons (left) transformed into a doubly-connected spiral action of 3 (mod. 5).

In Figure 7, the discontinuous singularities of the polygonal vertices (center) have eliminated the sides of the pentagonal manifold (left) which have been transformed into a continuous module of spiraling action (right module torus) in which the pentagons are no longer present. The pentagons are no longer there, because simple circular action is no longer there. Simple circular action has been superseded by a higher dimensionality of spiral action, which transformed the pentagonal sides into a spiraling surface of negative curvature from the original surface of simple circular action, thus, transforming space-time from a lower

simple positive curvature to a higher surface complex of both positive and negative curvature.<sup>8</sup>

Note that such a doubly-connected spiral manifold is the appropriate geometry for the complex domain of quadratic and biquadratic residues. In this case, 3 (mod. 5) generates the following quadratic series of residues 3, 9, 7, and 1. In other words, 1x3 steps takes you to 3; 3x3 steps takes you to 9; 9x3 steps takes you to 7; and 7x3 steps leads you back to 1.

The boundary condition of the circle prevents the communication between the two pentagons, but provides the opportunity for the singularity of a passageway between the five external sides 1, 5, 9, 3, 7, (of positive curvature) and the five internal sides 8, 2, 6, 10, 4 (of negative curvature). In other words, the only time the opposite sides of the two pentagons can be united together is by having them disappear through the inbetweenness of their transformation in *the coincidence of opposites*. Do not be surprised if such a geometrical construction tends to offend some people, because it is the axiomatic nature of the change which gets them perplexed.

This condition is like a geopolitical situation where one of two opposing forces is finally able to see a way out of a conflicting war condition by discovering a pathway to turn war into peace. Otherwise, the geometrical resolution of the conflict shows you how to go through an axiomatic transformation between simply connected circular action and doubly-connected spiral action.

Once you have discovered the significance of such an axiomatic transformation, apply it to the two dimensionalities of time and mind, forward and backward; that is, by applying a geometrical action similar to that of a dual

<sup>8</sup> Lyndon LaRouche established the fundamental aspect of such a geometry as follows: "The geometry which the student must master is not the Euclidean axiomatic schema, nor any formal non-Euclidean schema based on substitute axioms and postulates. The student must begin, so to

**Element of Military Policy (larouchepub.com)**, p. 40.

speak, with discovery of the elementary fact that a line is not determined by two points, but rather a point is a region of ambiguity defined by the intersection of lines. Similarly, a line is a region of ambiguity defined by intersection of surfaces, and a surface is a region of ambiguity defined by intersection of solids." The Function of Teaching of Grammar as a Crucial

planetary motion of rotating and orbiting around the Sun. Since this geometrical construction can only go forward and backward, you have also found an appropriate geometry for a memory modular function. Here is how to construct a module for 5 (mod. 9):

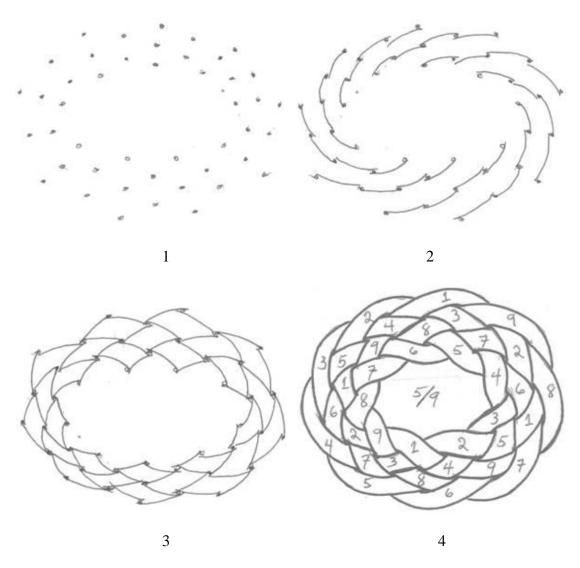


Figure 8. Modular Wave Function for 5 (mod. 9), with residues [5, 7, 8, 4, 2, 1.]

If you count clockwise the number of Poloidal waves of 5, following the successive powers of 5 with respect to the Toroidal cycle of 9, the series of

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<sup>&</sup>lt;sup>9</sup> See my report: LOCATING TEMPORAL-ETERNITY AS THE PHYSICAL SPACE-TIME OF MANKIND

residues of P/T = 5/9, or of 5 (mod. 9) will be 5, 7, 8, 4, 2, and 1. This raises the question of how to go back in time.

Your body may not be able to go back in time, but your mind can. In fact, time-reversal is not only mentally conceivable, but it is absolutely necessary for human survival. Thus, you have now in your hands the means of solving any crisis without romanticism thanks to Nicholas of Cusa's method of solving paradoxes with his *coincidence of the opposites*. Three main steps are required to be included into such a timely doubly-connected memory manifold. Here are the three poloidal components:

- 1. The first is memory, which acts as a holistic connecting switchboard of the human mind instead of a storage container like your computer. Memory is the connecting function which relays all of the two-way communication calls between consciousness and imagination.
- 2. The second is imagination, which acts as a rotating searchlight of the mind and which enables your consciousness to pick, twist, and turn everything it is able to find to improve the future of mankind within the memory of all domains of knowledge.
- 3. The third, is conscience, which is the moral command center guiding the imagination into connecting memory to legitimate connections and rejecting illegitimate ones. In that sense, conscience is judge, jury, and executioner of this whole process of knowledge.<sup>10</sup>

Such a doubly-connected function of the human mind has been created in the image of God exclusively for the purpose of improving the future of mankind.

<sup>&</sup>lt;sup>10</sup>Pierre Beaudry, 10/29/2018, <u>THE LAROUCHE METHOD OF THE CREATIVE-MENTAL PROCESS, PART I</u>, p. 3.

This is <u>The Substance of Morality</u>, which Lyndon LaRouche referred to as the basis for peace:

"Evidence from as early as hundreds of thousands of years ago, shows the continuing existence of hominids capable of those kinds of discovery of physical principle, the which place mankind apart from, and absolutely above the higher apes. All competent scientific inquiry respecting the nature of the human species, and of qualities specific to human behavior, rests upon a showing of crucial evidence of our species' distinguishing, manifest type of generation of an original or replicated discovery of a physical principle. No substitute for such knowledge of principles exists among outgrowths of such qualitatively inferior levels of mental activity as deduction or mere animal "learning from repeatable experience."

Think of this discovery of principle as a trigger mechanism which works as a twisted inversion turning your mind from the concern for itself to the concern for others and only for the benefit of others. The shift should work as follows: It may have been the flashy and elusive moment of victory which triggered the fatal clash of war between two countries, but it is the steadfastness of both opponents' characters toward mankind as a whole which can secure the duration of a peace which shall secure the happiness of a unified mankind in the future.

Such a twisted inversion is the necessary precondition for all forms of creativity, and specifically for the dominating axiomatic change which goes from a "self-centered" universe to a "benefit of the other" universe. That is the higher hypothesis of this report.

### **OLIGARCHISM VS TEMPORAL-ETERNITY**

Why is oligarchism the enemy of mankind and why is the discovery of *temporal-eternity* the means of preventing oligarchism from destroying mankind?

The most natural friend of mankind is the discontinuity of change, axiomatic change, because the improvement of mankind by uplifting mankind to higher

<sup>&</sup>lt;sup>11</sup> Lyndon LaRouche, *The Substance of Morality*, EIR, Vo. @5, No. 26, June 16, 1998, p. 22.

manifolds of understanding is the key and the measure by which man can indefinitely develop his powers beyond sense-perception, and master the laws of the universe. It is precisely this goal that oligarchism is hell-bent on preventing humanity from achieving.

It is human mastery of the laws of the universe that oligarchism attempts to stop humanity from acquiring by all means and at all cost, because such an achievement will definitely put an end to the romanticism of oligarchical power. By stopping creativity and putting an end to scientific and technological progress, the aim of oligarchical power is to push humanity to self-destruct, because its own tendency is to self-destruct and its aim is to have the last word.

In the opening two and a half minutes of a video shown during the Manhattan Project of March 9, 2024, <u>From Hell to Paradise</u>, Lyndon LaRouche gave a most stunning summary, going twelve years back, about the state of affairs in which humanity finds itself today threatened by the British-American oligarchy:

"...you have these innate creative powers and yet, what you have on the other hand the Queen of England and other dirty people who will say that mankind must be prevented from using them. Mankind must be prevented from doing this. Mankind must be prevented from increasing its population and its power in the universe. But, mankind is capable of doing these things and the oligarchy tries to prevent them from doing it.

"What you get now, is you get a series of kills, a whole pattern of kills of the human species. Now, we have reached the point where the kill factor, the ability to kill, which is the characteristic of the oligarchy which is to prevent creativity from occurring, will mean that the next war, or the present war, will be a thermonuclear fusion war. And from thermonuclear fusion war, the possibility of human extinction is probable, highly probable.

"The British Empire, as we know, is a universal form like the Roman Empire which collapsed by extinction of its own making. Then, we had a new Empire, which came out of the dead Roman Empire, with the same oligarchical system, with the same superimposed policy. That became the

Byzantine Empire, which ended in the most catastrophic collapse that was added to the Roman Empire. Then, we got the Crusader system and more fierce forms of killing, and that also killed itself off, in due course.

"Now, we've got the new Venetian system, which is otherwise known as the British Empire. And, the British Empire today, which is not the English people, it's a system superimposed upon the English and other peoples, the imposition of the rule associated with the British Empire, as it is associated with the President of the United States, who is a damned fool for tolerating it, means that we have reached the point where the access to thermonuclear fusion means that the next war can be the extinction of the human species.

"And the question is now, how many people are going to continue to tolerate the British Empire and what it represents; knowing that the consequences of the toleration of the current British Empire means either now or very soon the permanent extinction of the human species?" <sup>12</sup>

LaRouche's statement is a question of immortal time and not of chronological time. It is a question of *time-reversal*, which is a very unique and special axiomatic way to change, because it is the time of human creativity, the time that Lyndon LaRouche identified as *temporal-eternity* for both Mozart's motet *Ave Verum Corpus* (K. 616), and Carl F. Gauss's treatment of biquadratic residues.<sup>13</sup>

This is the power of discovery of how humanity can become immortal by accessing time as the required form of immortality. That is the reason why the question of time is fundamentally universal and extraterrestrial as LaRouche said: "Can astronomy, astrophysics and space exploration chart humanity's successful upward exit from self-extinction?" That is the question that LaRouche asked at the end of his video, and his answer was:

<sup>&</sup>lt;sup>12</sup> Video of Lyndon LaRouche, From Hell to Paradise (rumble.com).

<sup>&</sup>lt;sup>13</sup> Lyndon LaRouche, <u>The Essential Role of 'Time-Reversal' in Mathematical Economics</u> (larouchepub.com). EIR, Vol. 23, No. 41, October 11, 1996.

"Human sense-perception is not a reliable instrument of judgment. The so-called practical man is a stupid man, because practicality means that you have a species which is not capable of surviving, sooner or later. And now we have come to a time when it's sooner rather than later.

"We've gone through processes in terms of Empires and such things before. They have fallen and others have come up again; that's the oligarchical principle. It keeps going on and people say: 'But this can go on forever.'

"But, if you look at the effect, you find out that you have reached the point where mankind's existence depends on going to a higher form of productivity, a higher form of humanity, which means that as we go forward and we try to hold back, the tension between the necessity to go forward and the failure to go forward becomes increasing, which means that the extinction point is arrived at. This means in a sense that if we go to the fundamental question, which is what I want to say and tell you right now, which is that since that is the case, then sense-perception is recognized as a necessary but not a very intelligent way of looking at reality.

"The practical man is a dead man. It's just a matter of time before his species goes away. We need sense-perception, we need it to walk the streets and things like that, we need it to check the poisonous foliage, we need it for things like that. But, it is not the source of human intelligence. True intelligence is human creativity; and that is precisely what is suppressed by the oligarchical system; the case of the opposition to Plato is an example.

"The universe is organized, obviously, from the top-down, not from the bottom-up; and that's the point. That is the issue of the oligarchical system, that's the issue of 'Empire.' And, therefore, if we are not prepared to destroy 'Empire', in order to free man to use those capabilities which relate to mankind, we are at the point where mankind is fully qualified for a sudden extinction, unless we change our ways."<sup>14</sup>

### CUSA SHOWING THE WAY OUT OF PLATO'S CAVE

What I have just gone through above gives you a taste of how the creative powers of mankind can be mastered in the form of infinite change (i.e. freedom from limited sense-perception) in numbers which permits human memory to successfully make leaps upward from the future back to the past in order to have mankind exit the oligarchical condition of slavery and self-extinction. But first, you must get out of Plato's Cave. Some people are afraid to experiment with the next construction (Figure 9.) because they fear their lives may change while doing it. Try it and see what happens.

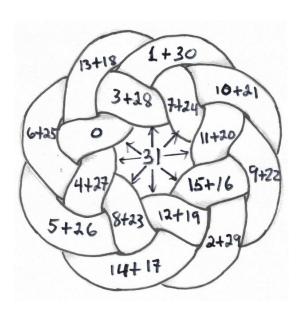


Figure 9. Reciprocity of number 31 in an image of the enfolding of the memory of the *simultaneity of temporal-eternity* 

<sup>&</sup>lt;sup>14</sup> The LaRouche Organization video: **From Hell to Paradise (rumble.com)**, March 9, 2024. The statement was originally broadcasted on March 7, 2012.

<sup>15</sup> If you wish to prove to yourself how the sovereignty of your mind works by self-construction and you are tired of going along to get along, do the Platonic Solid constructions from my Rabelaisian LANTERNLAND: Elementary Constructive Geometry – Pierre Beaudry's Galactic Parking Lot (amatterofmind.us)

Figure 9 leads us to demonstrate the immediate urgency of answering our last question: How can man supersede the oligarchy's control over human sense-perception and how can he access the higher domain of creativity? Here is how Nicholas of Cusa proposed that you get your mind out of your ass – I mean, out of Plato's Cave – by proving that your mind is immortal when it understands itself as number:

"The demonstration of mind's immortality can be fittingly sought out from number. Since there exists living numbers, namely the number used in counting, and since every number is imperishable in itself, even though it may seem changeable when considered in changeable matter, the number of our mind cannot be conceived as perishable. How then could the author of number seem perishable?

And no number can exhaust the mind's power to count. Since the movements of the heavens are calculated by mind and time is the measure of motion, time will not cancel the power of mind, but mind will remain as the limit, measure, and determination of all that can be measured (Emphasis added).

"The instruments for calculating the heavenly motions, which are products of the human mind show that motion no more measures mind than mind motion. By its own intellective activity, the mind seems to embrace every successive movement. Mind produces from itself the movement of reasoning, thus it is a form of movement. When anything perishes, this takes place through movement.

"How then can the form of moving perish through movement? How is mind not always alive since it is intellectual life moving itself, that is, the life which brings forth its own understanding? How does self-moving movement fail? Mind has life bound up with itself through which it is always living, just as a sphere is always round because of the circle bound up with it. If mind has the same composite character as numbers composed of themselves, how can it be resolved into something non-mental?

"In this way, if mind like number is the coincidence of unity and otherness, how can it be divided since in it divisibility is coincident with indivisible unity? If mind enfolds identity and diversity, since it understands things dividedly and unitedly, how will it be destroyed? If number provides a way of understanding mind and unfolding coincides with enfolding in mind's counting, how will it fail? For the power which enfolds by unfolding cannot become less. Now mind clearly does this, for whoever counts unfolds the power of unity and enfolds number into unity. Thus, ten is a unity enfolded from ten units; thus, whoever counts unfolds and enfolds.

"Mind is the image of eternity, but time is its unfolding, though an unfolding always less than the image of the eternal enfolding. Whoever notices the power of judgment created with mind, through which it assesses all reasons, and notes that reasons stem from mind, sees that no reason reaches the measure of mind. So, our mind remains unmeasurable, indefinable, and unlimitable by every reason. Only uncreated mind measures, limits, and defines our mind, as truth does its own living image created from it and in it, and through it.

"How would the image perish, which is the reflection of imperishable truth, unless truth annihilates its communicated reflection? Just as it is impossible that infinite truth withdraw its communicated reflection since it is absolute goodness, so it is impossible that its image, which is nothing but its communicated reflection, ever fail. Just so, after day has begun through the shining again of the Sun, day will never fail so long as the Sun shines."<sup>16</sup>

In the last page of About Mind Cusa provides us with the actual proof of human immortality. The nature of the proof itself, however, is not given in religious language, but in the epistemological form of the power of thinking as the "natural endowment" common to every human being.

<sup>&</sup>lt;sup>16</sup> Nicholas of Cusa, *THE LAYMAN: ABOUT MIND*, translated by Clyde Lee Miller, Abaris Books, New York, 1979, p. 91-93.

Unless such an immortality of mankind is recognized soon by a majority of human beings on this planet, humanity may not survive this century. That knowledge is expressed most briefly and most profoundly in Cusa's statement: "And no number can exhaust the mind's power to count. Since the movements of the heavens are calculated by mind and time is the measure of motion, time will not cancel the power of mind, but mind will remain as the limit, measure, and determination of all that can be measured." (Nicholas of Cusa, **THE LAYMAN: ABOUT MIND,** p. 91.)

The limited *temporal-eternity* image of such a truth of mind may be represented pedagogically as a puzzle of pre-established harmony where every number is triply-connected to 3, 6, or 9 as in the Holy Trinity. (See Figure 10)

Invent any whole number you wish, no matter how large it may be, and you will be able to locate its proper place among one of the nine locations of Figure 10; simply by adding the sum of its units as you keep rotating clockwise around the module. For example choose 67. Add the two digits 6 + 7 = 13. Add 1 + 3 = 4. Then, put 67 into 4.

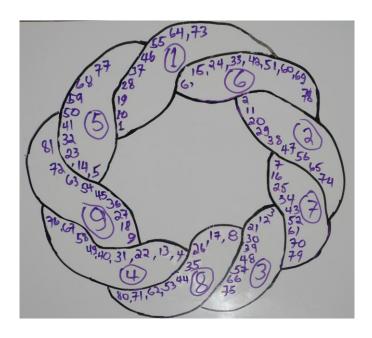


Figure 10. "Mind is the image of eternity, but time is its unfolding, though an unfolding always less than the image of the eternal enfolding." Cusa, *THE LAYMAN: ABOUT MIND*.

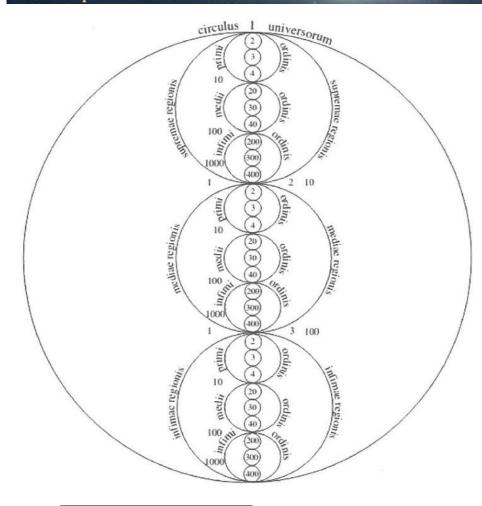


Figure 11 is of **Nicholas** Cusa's of illustration an of integration nine circles expressing the idea of the Holy Trinity with a universal circle in which are included self-replicating three circular triplets.<sup>17</sup>

Figure 11. Cusa's three circular triplets representing the Universal Circle of the Holy Trinity, from *De Conjecturis*.

"The first feature of the verbal action is *tense*. There are only three primary tenses, *past*, *present*, and *future*. The primary tense distinguishes the time at which an *ongoing*, *completed*, or *previously completed* occurrence is a *condition of action*. Such a condition of action of these times can be neither more nor less than *continuing*, *completed* at that point in time, or *completed prior to that point in time*. There are neither more nor less than nine tenses in a literate language.

"These tenses of verbal action can be expressed in either of two voices (active, passive), also as either *self-reflexive* or *not-self-reflexive action*, in a choice among neither more nor less than five moods. The moods are *indicative*, *imperative*, *conditional*, *subjunctive*, and *conditional subjunctive*.

"Hence, verbal-action can be discriminated in  $9 \times 2 \times 2 \times 5$  distinct ways: 180 ways and in respect to 7 cases:  $7 \times 180 = 1,260$ .

"Any language whose usage does not satisfy those most-basic grammatical requirements is a defective language." (p. 37.) The Function of Teaching of Grammar as a Crucial Element of Military Policy (larouchepub.com)

<sup>&</sup>lt;sup>17</sup> I wonder if such a partitioning of circular or spiral action can be related in any way to LaRouche's idea of transformative function of "tense" in the verbal action of a literate form of language? As LaRouche wrote:

### **CONCLUSION: A PRIME NUMBER MODULE**

### IN HONOR OF THE 50<sup>TH</sup> ANNIVERSARY OF EIR PUBLICATION

In honor of the fiftieth anniversary of the EIR magazine and of the republication of Lyndon LaRouche's August 18, 1981 article, The Function of Teaching of Grammar as a Crucial Element of Military Policy (larouchepub.com), I would like to submit a hypothesis regarding what Lyn was investigating with the projection of a geometrical distribution of prime numbers that he identified in the conclusion of his report. This hypothesis is also published in honor of Leibniz's original contribution to an appropriate use of numbers expressing his principle of pre-established harmony for human thinking.

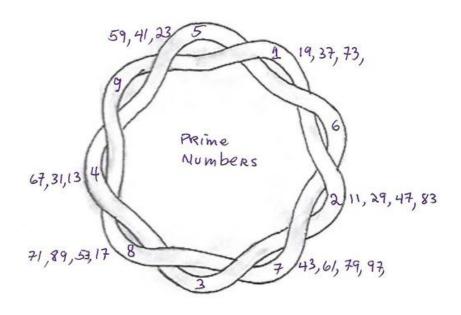


Figure 12. Prime numbers module.

Following LaRouche's insight formulated at the end of his article regarding the geometrical ordering of prime numbers, Figure 12 shows the existence of a singularity which is not obvious at first glance. The singularity shows what is missing; that is, the fact that none of the prime numbers from 1 to 100 are located within the cycles of 3, 6, and 9!

Why are prime numbers missing in those three locations? This singularity indicates something that is not at all obvious and which may reveal the reason for

such a geometrical distribution of prime numbers. Let us count only the first 25 prime numbers, from 1 to 100, and find out why this is the case. The list is as follows:

# A GEOMETRICAL DETERMINATION OF PRIME NUMBER RECIPROCITY

Note that all of the prime number reciprocals of [5+4], [8+1], [3+6], [7+2] add up to 9, but that all of the [4+2] add up to 6, and all of the [2+1] add up to 3. Thus, reciprocity is the higher geometrical ordering principle underlying prime numbers.

$$[5+4=9] 23+13 = (3+6) = 9$$

$$41+31 = (7+2) = 9$$

$$67+59 = (1+2+6) = 9$$

$$[8+1=9] 17+19 = (3+6) = 9$$
  

$$53+37 = (9+0) = 9$$
  

$$89+73 = (1+6+2) = 9$$

$$[6+3=9]$$
 = 9

$$[7+2=9] 43+11 = (5+4) = 9$$

$$61+29 = (9+0) = 9$$

$$79+47 = (1+2+6) = 9$$

$$97+83 = (1+8+0) = 9$$

$$[4+2=6] \quad 13+11=(2+4) = 6$$
$$31+29=(6+0) = 6$$
$$67+47=(1+1+4) = 6$$

$$[2+1=3]$$
  $11+19=(3+0)$  = 3  
 $29+37=(6+6)=(1+2)=3$   
 $47+73=(1+2+0)$  = 3

In discovering the principle of pre-established harmony behind even and odd numbers, Leibniz realized that he had found the means of ordering congruence and reciprocity among all counting numbers from the vantage point of a higher unity of principle between power and reason. He had thus acquired one of the most powerful ways of dealing with conflicting oppositions in war as in peace ever devised by mankind; that is, the underlying principle of reciprocity of all human minds behind the 1648 Peace of Westphalia.

In a letter dated June 12, 1702, recommending to Sophie, Electress of Hanover, a new method of understanding the principle of proportionality between odd numbers and square numbers, Leibniz realized that such truths were valid for all human beings and for all times. He wrote: "It is in this way that experience convinces us that the odd numbers continually added together in order to produce the square numbers: 1 + 3 make 4, that is, 2 times 2. And 1 + 3 + 5 makes 9, that is, 3 times 3. And 1 + 3 + 5 + 7 makes 16, that is, 4 times 4. And 1 + 3 + 5 + 7 + 9 makes 25, that is, 5 times 5. And so on." <sup>18</sup>

Thus, Leibniz realized that the harmonic ordering principle behind numbers was the way that God had established "eternal truths" as "fixed and immutable points on which everything turns." Leibniz demonstrated that the reason behind the ordering of regular integers reflects, infinitely, the process of reciprocity and of congruence of doubly-connected spiral action that LaRouche advocated as a way of going beyond and giving foundation to simple circular action.

Thus, it was as if God had created within both numbers and human minds, some pre-established cyclical harmonic order of reciprocity for the purpose of showing mankind how to resolve world problems by progressing from a higher manifold to a lower manifold. As LaRouche emphasized with extraordinary foresight in the conclusion of his 1981 paper:

<sup>&</sup>lt;sup>18</sup> In *Leibniz and the Two Sophies*: The Philosophical Correspondence, Edited and translated by LLOYD STRICKLAND, Iter Inc. Centre for Reformation and Renaissance Studies, Toronto 2011, Letter No. 48, March-June 1702, p. 231. Sophie of Hanover was the presumptive heiress to the throne of England and Scotland which was sabotaged by British "Intelligence."

"In any case, all integers count nothing real excepting singularities." Singularities of real processes, and all numbers not integers (or not normalizable as integers) are reflections of geometrically-determined proportions. Although no perfectly adequate projection of the distribution of prime numbers is yet known, the Euler-Riemann attacks on this problem, as well as the implications of the convergence of arithmetic and geometric means in a Fibonacci series, are collateral expressions of the ontologically geometric characteristics of all meaningful arithmetic statements."<sup>20</sup>

Thus, numbers 3, 6, and 9 are the higher singularities ordering the distribution of all prime numbers. They are reflections of those prime numbers taken two by two as geometrically-pre-established reciprocals. In other words, it is the higher manifold of reciprocity which determines the lower manifold of prime numbers, and not the other way around.

FIN