PIERRE BEAUDRY'S GALACTIC PARKING LOT

LEIBNIZ AND FUXI: THE EPISTEMOLOGY OF THE PEACE OF WESTPHALIA

Leibniz's axiomatic change with Fu Xi's *I Ching – The Book of Change* for the Benefit of the Other

by Pierre Beaudry, 2/11/2022

INTRODUCTION

Gottfried Leibniz's <u>WRITINGS ON CHINA</u>¹ is a beautiful example of how Western investigators can discover how the Chinese people have mastered what Leibniz identified as "monads" or "entelechies" with "pre-established harmony" through the discovery of the idea of an axiomatic change made by the founding father of Chinese Civilization, Fu Xi, for the benefit of the other.

Leibniz's views on China were not merely to inform western thinkers of a new way of looking at things; his purpose was to solve the deep epistemological and religious crisis that the Thirty Years War had created during the first half of the seventeenth century among European States that the Peace of Westphalia had begun to heal starting in 1648.

Lyndon LaRouche had a similar objective in proposing the great transfinite economic project of the <u>World Land Bridge</u> for the benefit of all of mankind; and, not surprisingly, in doing so, he confronted the same enemy as Leibniz did: the British Oligarchy and the British Crown.

¹ Gottfried Wilhelm Leibniz, <u>Writings On China</u>, translated by Daniel J. Cook and Henry Rosemont, Jr., Open Court, Chicago and La Salle, Illinois, 1994.

THE LEIBNIZIAN MEASURE OF ECONOMIC CHANGE

American historians, Daniel Cook and Henry Rosemont, noted in their 1994 book on Leibniz's <u>WRITINGS ON CHINA</u>, that it was Bertrand Russell who was the most aversive British commentator of Leibniz, because, as he admitted himself, he feared and despised Leibniz because he had no understanding of what the philosopher was talking about. In fact, Russell confessed:

"In the Lent Term of 1899 I delivered a course of lectures on the Philosophy of Leibniz at Trinity College, Cambridge. In preparing these lectures, I found myself, after reading most of the standard commentators and most of Leibniz's connected treatises, still completely in the dark as to the grounds which had led him to many of his opinions."²

Russell's hatred of Leibniz, the man who inspired the concept of "Life, Liberty, and the Pursuit of Happiness" which is in the second paragraph of the American Declaration of Independence, was palpable. Finally, Russell attempted to defame Leibniz's character by accusing him of sucking up to the princely oligarchy. Russell wrote:

"Another cause which contributed to the dissipation of his (Leibniz) immense energies was the necessity for giving satisfaction to his princely employers. At an early age, he refused a professorship at the University of Altdorf, and deliberately preferred a courtly to an academic career. Although this choice, by leading to his travels in France and England, and making him acquainted with the great men and the great ideas of his age, had certainly a most useful result, it yet led, in the end, to an undue deference for princes and a lamentable waste of time in the Endeavour to please them."³

On the other hand, American historian Nicholas Rescher saw the venomous hatred behind Russell's defamation and had the moral courage to refute him by

² Bertrand Russell, <u>Critical Exposition of the Philosophy of Leibniz</u>, Cambridge University Press, 1900, p. vii.

³ Russell, Op. Cit., p. 2.



defending Leibniz when he wrote the following correction at the end of his own book, restoring the truth in his "Excursus":

"Modern commentators tend to remark disparagingly upon the striking contrast of Leibniz's system between its daringly innovative logic, epistemology, and metaphysics and its extremely conservative ethics and theology. (Similar complaints are sometimes lodged against Descartes.) Bertrand Russell has even suggested that Leibniz had two systems: 'the good philosophy which he had kept to himself, and ...the vulgarized version by which he won the admiration of Princes and (even more) of Princesses.' (Russell, *Critical Exposition*, p. vi.) This view of the matter seems to me wholly unjustified. Quite the reverse seems true: the guiding aim and aspiration of Leibniz's philosophy is to establish a rigorous rational foundation for what he accepted as the fundamental teaching of ethics and theology. [...]

"Leibniz eagerly wanted to persuade his readers (usually his correspondents), not in order to win personal disciples in high places, but to secure effective adherents to implement a vision of truth which he felt capable of healing the theological strifes and political discords in Europe of his day. Had fame been his prime goal, he would have written more books and fewer letters. What Leibniz wanted was not public acclaim, but influential converts who could implement in the sphere of action his reconciling insights in the sphere of thought. It is always risky to speculate on motives, but in my own mind, there is no doubt that the aspirations which actuated him were, in the main, not those of selfishness but of public spirit."⁴

The opposition between Russell and Leibniz is important to understand in order to appreciate the Chinese selfless intellectual tradition that Leibniz had uncovered and embraced when he rediscovered the famous contradictions of Fu Xi's *I Ching - The Book of Change*. Leibniz not only discovered the oldest book that man had ever written, but he also rediscovered the oldest method of respect for

⁴ Nicholas Rescher, <u>*The Philosophy of Leibniz*</u>, Englewood Cliffs, NJ, Prentice-Hall, 1967, pp.159-160. Reported by Daniel J. Cook and Henry Rosemont, Jr. in Gottfried Wilhelm Leibniz, <u>*Writings On China*</u>, Open Court, Chicago and La Salle, Illinois, 1994, p. xiii.



developing reciprocal understanding among different peoples from opposite ends of the world.

The most interesting aspect of the *I Ching* book lies in the fact that Leibniz had rediscovered the fundamental idea of axiomatic change within the complementary interaction of the two opposite values of 0 and 1 which act as reciprocals; that is, the *yin* - - and the *yang* – a broken line and an unbroken line that the Chinese have been using as the two elements of change in their celebrated principle of *Tai Chi*.⁵ Those reciprocals are precisely what Nicholas of Cusa had elaborated in his own discovery of the *coincidence of opposites* through the unity of motion of unfolding and enfolding.

Although the *I Ching - The Book of Change* has been mostly misrepresented for centuries as a fortune telling manual, its original intention was not aimed at saving egos through divination or necromancy, but was rather aimed at helping others in understanding how to solve contradictory problems in both nature and society. Reconciliation of opposites became a decisive question for war and peace.

LEIBNIZ'S DISCOVERY OF FU XI'S PRINCIPLE OF CHANGE AND MUSIC

Leibniz discovered that there were two significant characteristics in the numbering process of Fu Xi's *I Ching - The Book of Change*. The first characteristic shows that the underlying idea behind whole numbers is not based on calculation, but on the growth of a cyclical periodicity of change. The second characteristic is that such a periodicity of regulated changes among integers is based on closed circular action which reflects the musical wave function of Classical artistic composition based on the middle C-256 series.⁶ As Leibniz showed, the change takes place at the musical octave:

The first cycle moves thus: 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, 0, 1, etc.

The second cycle moves thus: 0, 0, 1, 1, 0, 0, 1, 1, 0, 0, 1, 1, 0, 0, 1, 1, etc.

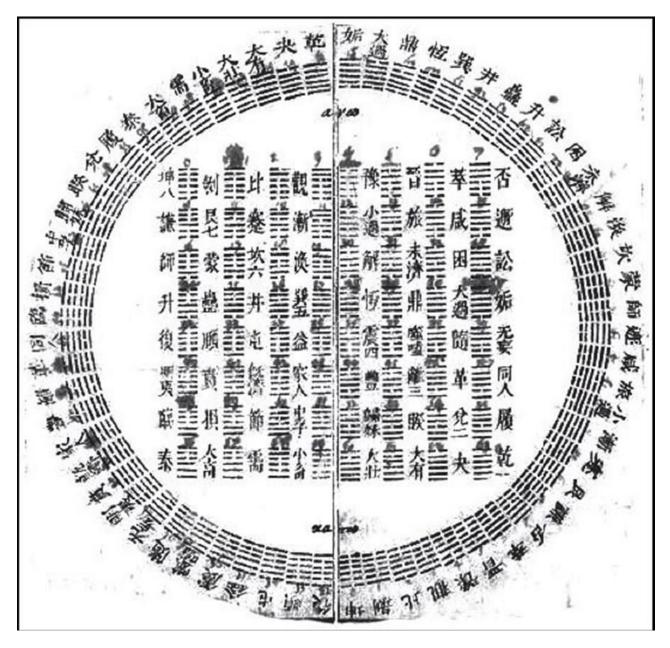
⁵ In his letter to Bouvet dated February 15, 1701, Leibniz compares "the co-mingling of the unit [i.e., the number one] and zero, much the same as all creatures coming uniquely from God and nothingness."

⁶ See ADDENDUM at the end of this report



The third cycle moves thus: 0, 0, 0, 0, 1, 1, 1, 1, 0, 0, 0, 0, 1, 1, 1, 1, etc.

And the fourth cycle moves thus: 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, etc.



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The Hexagrams of the *I Ching* sent from Father Joachim Bouvet to Leibniz. Note the Leibniz numbers under each hexagram.⁷ From the Leibniz Gesellschaft, Niedersächsische Landesbibliothek, Hanover, Germany. All of the numbers should be viewed as if from the center of the circle.

The process of change always takes place with the successive doubling of the periodic octave series. This process is very important because it represents an axiomatic difference from the way we consider and use numbers in the West; the point being that no calculation whatsoever is required for such a Chinese construction. All you need to know is the periodical circular wave action which closes on itself only to become included again, changed through reciprocity, within the next greater wave. For example, the keyboard series of six octaves where the lowest note is **C-32** and the highest is **C-2048**; their square root being middle **C** at **256** cycles: 2, 4, 8, 16, **[32, 64, 128, 256, 512, 1024, 2048],** 4096 ...

The originating principle of the wave motion is based on the multiple of two and the inverse division by half and half the half in accordance with the change of octave. When the multiplication by two and the inverse division by halves are unified in a process of *coincidence of opposites*, what is generated are three sets of four Lydian divisions which produce the Dominant, Sub-dominant, and Tonic of all of the twenty four key signatures of the musical system of J. S. Bach; that is, 1) **A**, **C**, **Eb**, **F**#, 2) **G**, **Bb**, **C**#, **E**, and **3**) **F**, **Ab**, **B**, **D**. Such is the binary measure of transformation common to Fu Xi, Confucius, Plato, Bach, Leibniz, and LaRouche representing the creative principle of change in classical artistic composition.

Let me bring your attention first on the Leibniz binary progression between the Fu Xi numbers and the 256 musical series. Leibniz rediscovered a fascinating correspondence between the two series, which is that each doubling corresponds to the addition of a zero. He developed the following correspondence where all of the numbers of the power of two series form a pre-established notable singularity at each octave of the series where all of the zeros and all of the ones change:

0	0	1	1
1	1	<u>10</u>	2

⁷ See my previous report: **FUXI'S AND LEIBNIZ'S I CHING PUZZLE**. See also ShanghaiDaily.com, *Understanding Bagua sequence*, December 6, 2015.

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11	3	<u>100</u>	4
111	7	<u>1000</u>	8
1111	15	<u>10000</u>	16
11111	31	<u>100000</u>	32
111111	63	<u>1000000</u>	64
1111111	127	<u>10000000</u>	128
11111111	255	<u>100000000</u>	256, etc.

Note how the entire process of composition of the **C-256** series comes to a changing point of opposition between the zeros and the ones at each octave singularity of the musical system. Leibniz wrote:

"§68a In Binary Arithmetic, there are only two signs, 0 and 1, with which one can write all numbers. When I communicated this system to the Reverend Father Bouvet, he recognized in it the characters of Fohi (Fu Xi), for the numbers 0 and 1 correspond to them exactly if we put a broken line for 0 and unbroken line for the unity, 1. This Arithmetic furnishes the simplest way of making changes, since there are only two components, concerning which I wrote a small essay in my early youth, which was reprinted a long time afterwards against my will. So it seems that Fohi [Fu Xi] had insight into the science of combinations, but the Arithmetic having been completely lost, later Chinese have not taken care to think of them in this way and they have made of these characters of Fohi some kind of symbols and Hieroglyphs, as one customarily does when one has strayed from the true meaning (as the good Father Kirker has done with respect to the script of the Egyptian obelisks of which he understands nothing). Now this shows also that the ancient Chinese have surpassed the modern ones in the extreme, not only in piety (which is the basis of the most perfect morality) but in science as well."8

⁸ Gottfried Wilhelm Leibniz, <u>Writings On China</u>, translated by Daniel J. Cook and Henry Rosemont, Jr., Open Court, Chicago and La Salle, Illinois, 1994, p. 133. According to David E. Mungello, <u>Leibniz and Bouvet</u>,



What the Chinese tradition has also forgotten is the fact that binary arithmetic represented a metaphor of the fundamental process of axiomatic change in the universe as a whole, physical as well as mental. Once you realize that the two numbers 0 and 1 correspond to two contradictory and reciprocal opposites, and not simply to two subsequent numbers or events, the crucial paradox of the *coincidence of opposites* of Nicholas of Cusa and of Fu Xi's *I Ching* numbers begin to come into view as a unique metaphorical paradigm of *axiomatic change* in dealing with both the oppositions of the Eastern and the Western worlds.

ON LEIBNIZ'S REDISCOVERY OF THE UNDERLYING FIRST PRINCIPLE OF *I CHING*: THE BENEFIT OF THE OTHER

Leibniz lawfully focused on the principle of the *benefit of the other* of the Peace of Westphalia because this was the creative process behind the number series he had discovered in *I Ching*. Such a process is the simplest, most rigorous method of composing the changing series of Chinese figures originally created by Fu Xi, whose purpose was to demonstrate how the generative process of creation itself is composed and articulated. By naming this process an "analogy to Creation", Leibniz wanted to focus the reader's attention on the performative nature of Fu Xi's discovery which, as does any true creative composition, demonstrates nothing else but the principle of how man is able to create *in Imago Dei*, by accomplishing what he says he is doing.

At the beginning of a section of the book, <u>Writings on China</u>, called *Remarks on Chinese Rites and Religion (1708)*, Leibniz tackled this idea of *Imago Dei* by addressing the very difficult philosophical and theological subject of

University of Hawai'i Press, JSTOR download, 11/21/2021: "While admiring the text of the Changes, Bouvet believes that many of the commentaries written on it are full of errors and, expressing a characteristic missionary's complaint, notes that a section in the Changes on divination is pure superstition. Bouvet compares the corpus of the Changes to a precious residue left from antiquity. Time has since overlaid this corpus with errors that obscure what the original patriarchs taught to their descendants. Placing the origins of China back 3000 or 4000 years prior to A.D. 1700, Bouvet refers to Fu Hsi (Fu Xi) as the first legislator who composed this famous diagram of 64 figures and 384 lines. The reference here is to either the circular or the square arrangements in the Prior to Heaven order (Hsien-t'ien tzu-hsü), in which each of the 64 figures contains six lines. These figures when multiplied together, yield a total of 384 lines. Bouvet believes that this diagram summarizes in a Pythagorean fashion the perfected state of the sciences of arithmetic, music, astronomy or astrology, medicine, and physics possessed by the Chinese forefathers." (p. 46.)



discovering whether the Chinese people had a similar notion of the Creative God as Christians had. Leibniz wrote:

"§1 Recently while looking for something in the Journal des Savants, which has been published in Paris for many years, my eyes fell by chance on some reviews, which I had once read, of certain books on the cult of the Chinese that had appeared long ago, that the Directors of the Seminary for Foreign Missions in Paris had taken the trouble to reissue. In the journal of 11 April 1701, the essay of Father Longobardi, S.J., who succeeded Passio, Ruiz and Sabbatinus of the same missionary order, states -- against Pantoja and Banoni -- that the Chinese have had no notion of incorporeal beings and therefore God, the Angels and the soul were unknown to them and that the substance which they call Xangti is not what we take to be God. For them, all things come from a certain principle called Taikie (Tai Chi), which contains in itself the Li -- the primary matter as the substance of things -and the primitive ether as the proximate matter. From the Li, taken in itself, emanates justice, wisdom, and the other virtues; but from the Li, taken as (more) modified and thus united with the primitive ether, originates the five elements and the physical forms."⁹

The most fascinating aspect of Leibniz's reference to Tai Chi is the implication of the fact that the practice of this martial art is also a daily spiritual and physical exercise of the creative process of resolving the paradox of the *coincidence of the opposites* practiced by millions of Chinese people and that each human being is able to replicate as if the process was an expression of the Christian idea of creativity. A few pages later, Leibniz proposed the following bold hypothesis:

"§8 What Longobardi himself reports of the Taikie (Tai Chi), the Li -- and the primitive ether or spirit, which at least corresponds somewhat to the Trinity of the Christians or of the Platonists -- supports this. The Taikie (Tai Chi) is the power or first principle; the Li is wisdom which contains the ideas or essences of things; the primitive Ether is the will or desire -- what

⁹ Leibniz, <u>Writings on China</u>, pp. 67-68.



we call spirit -- *from which activity and creation is effected*. [Emphasis added] Not for nothing are the virtues said to emanate from the Li, from which you may know that in it is the source of the truth and the good. That they in fact conceive the Li or spirit as the matter of things, may have originated from the unsuitable terminology among a people lacking in metaphysical vocabulary. Perhaps the ancient authors understood each thing to have its being and perfection from God, even though they were not able to clearly expound the means of origination.

§9 And thus, as far as I understand, I think the substance of the ancient theology of the Chinese is intact and, purged of additional errors, can be harnessed to the great truths of the Christian religion. Fohi (Fu Xi), the most ancient prince and philosopher of the Chinese, had understood *the origin of things from unity and nothing, i.e., his mysterious figures reveal something of an analogy to Creation,* [Emphasis added] containing the binary arithmetic (and yet hinting at greater things) that I rediscovered after so many thousands of years, where all numbers are written by only two notations, 0 and 1."¹⁰

Thus, only at the end of this discussion on the subject of "God", that is, on the subject of Tai Chi, Li, and Xangti, understood as a Trinity, did Leibniz bring up the discovery of numbers by Fu Xi, and not before. Why? How does he go from theology to arithmetical-geometry so fluidly? What is the connection between the two? Why did he associate the question of numbers with the question of the Holy Trinity and the creative process? How can a gestalt between musical geometrically ordered numbers and God's Creative Process be formed naturally inside of the human mind?

The answer to these questions is not simple because the purpose of Leibniz was to create a dialogue among the different nations of the world in order to generate a human society that has no religious and epistemological borders and which can express itself, no matter where it is located around the planet, with the same "natural theology" potential that the Chinese people have achieved; thus

¹⁰ Leibniz, <u>Writings on China</u>, pp. 72-73.



creating a new transfinite or common epistemological domain for all people based on universal reason that mirrors the Creative Spirit of God. The common esthetical, ethical, strategic and epistemological dimension of this higher level of thinking is the most important new form of identity that is required for solving world problems today.¹¹

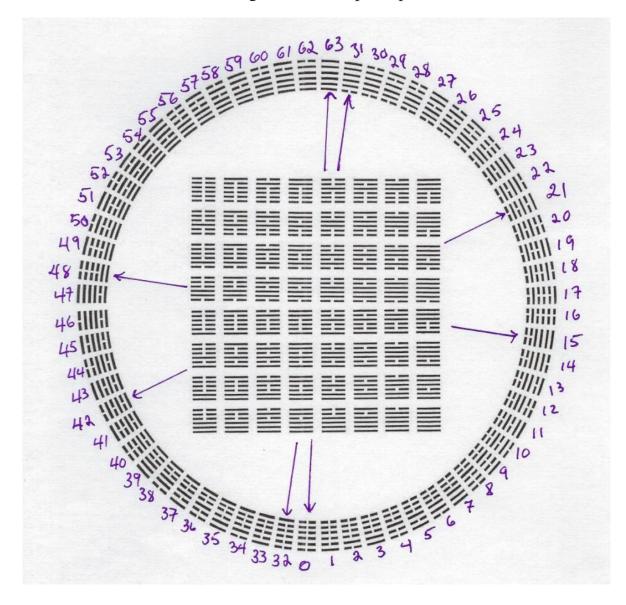
The crucial connection with Fu Xi, here, is a delicate balance of unity and diversity generating an ordering sequence of reciprocals; that is, the unity of the One and the Many, where the sum of any two opposite numbers in opposition to each other from across the diameter of the circle is always 63; the point being that all of the opposite numbers taken in pairs, two by two, are always reciprocals of the same total as if the process of change had been a form a pre-established harmonic unity of balance within all of the multiple cycles throughout the process of a continuous growing multiply-connected circular action.

As Leibniz showed on his copy of the hexagrams sent to him by Father Bouvet, numbers have no divination or astrological meaning whatsoever, because the basic structure of the hexagrams is entirely based on pre-established combinations of six stacked horizontal lines which must be read from top to bottom or from bottom to top, and in which each line is either unbroken (yang –) or broken (yin --), that is, two opposite numbers. For example rotate $1 = \blacksquare$ ninety degrees to the right and you will get \blacksquare ninety degrees to the left \blacksquare number 000001. So, it doesn't matter whether you go from the bottom up or from the top down, as long as the relationship among all of the numbers is consistent.

¹¹ It is important to understand Leibniz's difference between "revealed theology" and "natural theology," because the whole matter of divine knowledge of creativity hinges on the human ability to transcend what may be understood as the ability to pierce through finite epistemological limitations. Leibniz's most significant contribution to epistemology is to have opened for mankind the domain that Lyndon LaRouche explored as the transfinite domain. For Leibniz, "natural theology" is based on the conformity between faith and reason. This is the crucial point that Leibniz made in *The Leibniz-Clarke Correspondence*.



And, the consistency of the pre-established ordering is their motion of change which unites all reciprocal oppositions. Do it yourself and you will see that there is no divination or fortune telling, here; there is only the rigorous determination that human beings practice reciprocity in order to have peace among themselves. But, the precondition is that one abandons the domain of selfish sense perception and adopts the *common sense* of the Platonic or Confucian domain of ideas. Although the mind may be separate from the domain of matter, it is nevertheless unified with it through a common principle.





Note how the four pairs of reciprocal hexagrams 0-63, 31-32, 15-48, and 21-42 are the inverse conceptual images of each other.

The challenge, therefore, is to discover why the hexagrams are all paired inversions of each other, everywhere across the 32 diameters of the circle. For example, $0 \equiv \equiv \equiv$ is paired across the diameter of the circle with its opposite 63 $\equiv \equiv$. (See Figure)

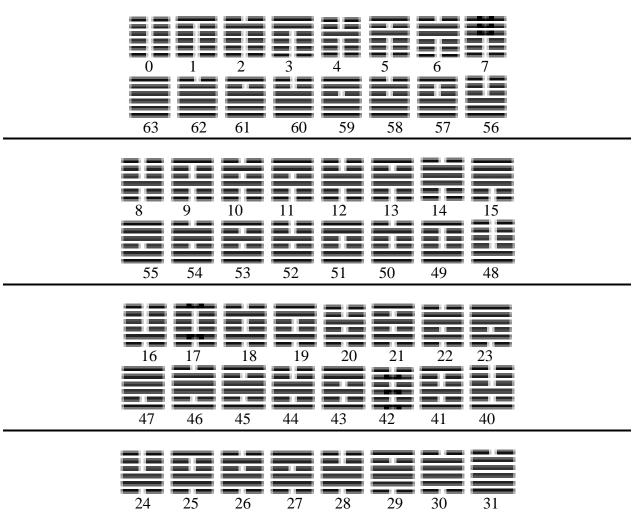
Lastly, compare the difference between a conceptual reciprocity image of Fu Xi's dual hexagram and the perception image of King Wen's¹² dual hexagram: The Fu Xi dual 20 43 55 is conceptual while the King Wen dual 43 544 55 is perceptual. Fu Xi inverses every line and generates reciprocals. King Wen does not generate reciprocals but inverses the entire hexagram for some unknown visual purpose. The point is that the Fu Xi's change is conceptual while King Wen's change is merely sense perceptual. This is a crucial axiomatic difference which acts as a boundary limit to mental human progress.

¹²https://en.wikipedia.org/wiki/King Wen sequence



THE 32 RECIPROCAL PAIRS OF CONCEPTUAL *I CHING* HEXAGRAMS¹³

The following ordering of 32 reciprocal pairs of hexagrams ordered eight by eight is derived from the opposition of all of the *yin* and the *yang* lines taken from the original Fu Xi *I Ching* circle. This means that each of the six individual *yin* or *yang* line of every hexagram on one side of the circle must find its contrary in a similar position in the opposite location across that circle. This application of the principle of change by means of reciprocal coincidence of paired images and numbers is the most ancient circular form of Nicholas of Cusa's solution to the paradox of the *coincidence of opposites*.



¹³ I have followed the Shao Yong square of the Fu Xi notation by reading the hexagrams from the top down. Note how all of the reciprocals are conceptual opposites of each other as opposed to mirror image perceptions of each other.



30	38	37	36	35	34	33	32
39	50	57	50	55	54	55	52

It is unfortunate that this reciprocal list of pairs cannot be found anywhere else on the internet because without such a mental correlation the idea of reciprocity can never be recognized. Some original copy of this reciprocal distribution must exist somewhere in China and should be found, because this is the only legitimately ordered distribution of the *I Ching* figures which is in accordance with the original Fu Xi display of the circular *I Ching* hexagrams. Note how none of the changes are perceptual changes of each other as is the case for the dual hexagrams displayed by the King Wen sequence.

The significance of this ordering of the hexagrams has been lost in the fog of time and can only be rediscovered today, thanks to the inner-directed patience of a Leibniz. Thus, the secret of the *I Ching* mystery is revealed to the patient mind of the truth seeker through the ordering method of constructive reason without self-interested divination. Do you know of a better way to recover the true original axiomatic significance of *I Ching* and of its principle of reciprocity?

LEIBNIZ'S POWER OF COMMON SENSE¹⁴

"I have said it before, and I say it again: we send missionaries to the Indies to preach the revealed religion. That's all very well. But it seems that we now need the Chinese to send us missionaries in return, in order to teach us the natural religion that we have almost lost."

Leibniz, Letter to Sophia Charlotte, 10/20 September 1697.¹⁵

¹⁴ Lyndon LaRouche wrote the following note on the notion of "common sense" in opposition to "horse sense" or "practical sense": "Whatever 'common sense' should mean, the included term 'common,' signifies that a society were unlikely to attain successful survival, unless 'common sense' were more or less commonplace. That is a view not inconsistent with an opinion expressed by some notable founders of our federal republic, that a certain quality of universal public education were indispensable, to ensure future generations capable of preserving the freedom which had then been won recently at such great peril and expense." Lyndon LaRouche, *What is Common Sense?*, in *THE SCIENCE OF CHRISTIAN ECONOMY*, Schiller Institute Inc, Washington D.C. 1991, p. 7.

¹⁵ 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, p. 170.



As Leibniz demonstrated in his correspondence with the Electress Sophia Charlotte of Brandenburg, his rediscovery of the Fu Xi power of change with numbers was much more than a mathematical ordering; it was the discovery of the power of *common sense* over *sense perception*. Leibniz proved that the common power of understanding ideas is much more clear and precise than sense perception, because ideas give you a greater certainty of truth than any empirical appearance could do.

In reality, what we get from sense perception is what we understand the least. Leibniz gave the example of the color green, for instance; we have no sense perception that it comes from the mixture of blue and yellow, and we don't even understand how that mixture might come together to generate green. In other words, we have no understanding of how the color green is generated. Outside of an impression, an appearance, or a simple apprehension which is different with for each individual the human mind knows nothing about the color green. As a result, no one can have any knowledge from an impression of green. On the other hand, the idea of *common sense*, which is an idea that is internal to each one of us, is an intelligible notion which we understand much better than a color, because it is common to all human beings. Leibniz made the point as follows:

"But there are other *more intelligible notions* which we attribute to the *common sense*, because they do not have an external sense to which they are uniquely associated with and characteristic of. Such is the idea of *numbers*, which are discovered likewise in colors, sounds, and tactile qualities. It is in this way that we also perceive *shapes*, which are common to colors and tactile qualities, but which we do not detect in sounds. And as our soul compares the numbers and shapes that exist in colors with the numbers and shapes found by touching, it must be the case that there is a common sense in which the perceptions of these different external senses are reunited. It is also evident that particular sensible qualities are susceptible of explanation



and reasoning only insofar as they contain what is common to the objects of several external senses, and belong to the internal sense."¹⁶

Ironically, the internal sense that we have in what we call our "selves" is not what is unique about each one of us, but is what we all have in common! The self is what we all recognize as *being shared with every other human being*, something which has common needs and common aspirations and which is *commonly unique* to each one of us. Why is it, then, that when people turn to their "self" they become so selfish? Would it not be much better if every "self" were to seek and learn what is common to each one of us and share that with each other? What sort of "self" can survive as a lone "I" like an isolated island away from all others? Here is how Leibniz came to establish the crucial difference between mere shadows of isolated sense perception appearances and the certainty of ideas of *common sense* shared by everyone. He wrote:

"However there are also *objects of our understanding* which are not included at all in the objects of the external senses, and such is the object of my thought when I think of myself. This 'I' and my action adds something to the objects of the senses. For color is something different from the self who thinks about it. And as I conceive that other beings are also entitled to say "I," or that one can think in such a way on their behalf, I thereby conceive what is called *substance*. So it can be said that there is nothing in the understanding that did not come from the senses except the understanding itself."

"Being itself and truth are not grasped entirely through the senses. For it would not be impossible that a creature have long and well-ordered dreams, so that everything it thought it perceived through the senses were nothing but sheer appearances. Therefore there has to be something beyond the senses which distinguishes the true from the apparent. But the truth of the demonstrative sciences is exempt from these doubts, and must even serve to judge the truth of sensible things. For as able ancient and modern

¹⁶ *Leibniz and the Two Sophies: The Philosophical Correspondence*, 47. Leibniz: On what is beyond the external senses and matter (March–June (?) 1702) p. 221.

philosophers have already rightly pointed out, even if everything I think I see were only a dream, it would still be true that I, who thinks while dreaming, would be something, and would indeed think in many ways, for which there will always have to be some reason. And if I were to discover some demonstrative mathematical truth while dreaming, it would be just as certain as I were not asleep.

[...]

"So what the ancient Platonists have said is very true and very worthy of consideration, namely, that the existence of intelligible things, and especially of this 'self' which thinks and which is called the mind or soul, is incomparably more certain than the existence of sensible things, and that therefore it would not be impossible, speaking in metaphysical rigor, that there should ultimately be only these intelligible substances, and that sensible things should be nothing but appearances. Whereas our inattention makes us take sensible things for the only real things. It is also right to note that if while dreaming I were to discover some demonstrative truth, mathematical or otherwise, it would be just as certain as if I were not asleep, which shows the extent to which intelligible truth is independent of the truth or the existence outside of us of sensible and material things.

"This conception of *being* and *truth* is therefore found in this 'self,' and in the understanding rather than in the external senses and in the perception of external objects. We also discover there what it is to affirm, to deny, to doubt, to will, and to act. But above all we discover there the force of the *consequences* of reasoning, which are what is called the *natural light*."¹⁷

Let's look at such a mathematical "demonstrative truth" that Leibniz dreamed of, and see if it applies to a Platonic truth that we ought to consider. While working on his reconstruction of the Fu Xi numbers, Leibniz discovered another ordering which he identified as follows in his correspondence with the Electress Sophia Charlotte of Brandenburg. He wrote to her: "It is in this way that

¹⁷ Leibniz, *Writings on China*, pp. 221-222 and 229-230.



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."¹⁸

Thus, the sum of all continuous odd numbers always generates a square number. How odd? As one can see, whole natural numbers were not created to simply follow each other, one by one, in single file, without reflecting the creative process that generated them; *the odd numbers were created to produce all of the square numbers within a separate and higher ordering process of generation acting among them*. In other words, there is a pre-established harmony *among them*; therefore, there is a lesson to be learned, here, especially with respect to the action coming from "*among them*."

The idea of generation which is *self-growing* is a fascinating pre-established idea on the part of God; it is as if the Creator had given human beings an intelligible means of understanding how they should make each other grow to higher levels, by making them *relate to each other with reciprocity*, without the need of sense perception, and without killing each other. All you need to do is to be an odd character among your friends.

This idea is entirely coherent with the binary use of only two numbers, 0 and 1, as Fu Xi and Leibniz discovered, each in their own way, but which are not actual numbers. Those figures represent the epistemological *power* of ordering numbers and everything else that is digital as a means of resolving paradoxes. However, since the sum of all successive odd numbers always generates a square number, one is tempted to further ask: what sort of *power* would always generate a cubic number; and what sort of breakthrough would that *power* represent for the human mind? The answer to that question can also be found in the construction of the Fu Xi trigrams and the hexagrams. Father Joachim Bouvet had a similar outlook that he presented to Leibniz. As David Mungello wrote about Bouvet's correspondence with Leibniz:

¹⁸ Leibniz, <u>Writings on China</u>, p. 231.

"In his letter of 28 February 1698, Bouvet refers Leibniz to Fr. Couplet's Confucius *Sinarum Philosophus* for a representation of these ancient Chinese characters. In fact, Bouvet believes that the diagrams of Fu Hsi (Fu Xi) concentrate not only arithmetical and linguistic elements but also the natural principles of all sciences. This metaphysically complete system was thought to have been lost by the Chinese long before the time of Confucius (551?–479? B.C.), though the diagrams themselves have remained known to the Chinese through their classic, the Book of Changes."¹⁹ (p. 43)

THE SECRET AXIOMATIC NATURE OF FU XI'S TRIGRAMS AND HEXAGRAMS AND THE BENEFIT OF THE OTHER

In the Chinese practice of *I Ching*, the five phases (*wuxing*) of change correspond to five different forms of transformation going from Wood, Fire, and Earth, Metal and Water.²⁰ This is also relevant for understanding the transfinite nature of LaRouche's economic doctrine. Plato applied a similar idea to the generation of the five regular solids from the domain of spherics.

The five Fu Xi phases are also made to correspond to five stages of the evolution of human development: Common Man, Worthy Man, Superior Man, The Called One Walking Man, and the Holy Man. From the vantage point of axiomatic transformations, I would say that those five phase spaces of change could be identified as pre-examination, examination, preparation, action, and self-sustained generation. However, with respect to those who have been able to accomplish or who are about to go through an axiomatic process of transformation, the most important matter of principle to clarify is the significance of the performative motion involved. The origin of the *I Ching* moral order is as follows:

"In the beginning there was as yet no moral or social order. Men knew their mothers only, not their fathers. When hungry, they searched for food; when satisfied, they threw away the remnants. They devoured their food hide and hair, drank the blood, and clad themselves in skins and rushes.

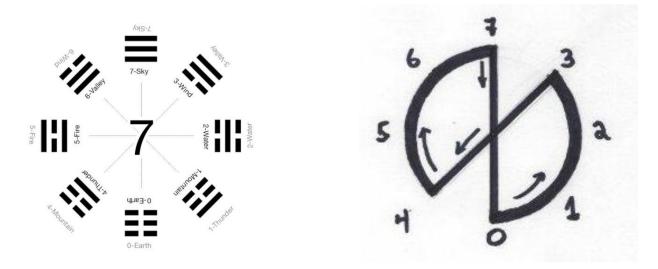
¹⁹ David Mungello, *Leibniz and Bouvet*, JSTOR., p. 43.

²⁰ <u>Yin-yang, the Five Phases (wu-xing), and the Yijing</u>



Then came Fu Xi who looked upward and contemplated the images in the Heavens, and looked downward and contemplated the occurrences on Earth. He united man and wife, regulated the five stages of change, and laid down the laws of humanity. He devised the eight trigrams, in order to gain mastery over the world."²¹

In that sense, it is not important to know the particular make-up of people you know individually; what is important is to know the universal qualities of their common sense in the timeless simultaneity of eternity. This is the quality of knowledge that Leibniz had in common with Fu Xi, and from this universal vantage point, he had a more "personal" and "vivid" relationship with someone who lived thousands of years before he did, than with most of his contemporary correspondents. The following experiment will show you how the unique discovery of this universal quality was made by making Confucius' intellectual virtue intelligible for everyone.



The eight trigrams and the circular figure eight motion of an axiomatic change

The circular motion of numbers with the eight trigrams of Fu Xi's *I Ching* is the most revealing feature of this puzzling epistemological geometry in that the

²¹ *<u>The I Ching or, book of changes: the Richard Wilhelm Translation</u>, Routledge & Kegan Paul, London, Internet Archive, 1968.*



steps are consciously designed to represent the partitioning of the circle into two opposite and equal parts in your mind and to have all of the diametrically opposite numbers paired across the diameters of the circle in such a way that the total of each pair is always seven. That's how the epistemological motion of *common sense* is generated to produce an axiomatic change. That is the most ancient circular form of axiomatic change in the whole of human history, which can be called the arithmetic/geometric mean of Fu Xi, a format that was later to be examined by Nicholas of Cusa under the theological dynamic of enfolding and unfolding whose process can be understood as follows:



Fu Xi and the axiomatic curvature of I Ching trigrams.

The Moebius Strip

Start the action of the eight trigrams by moving up counterclockwise from 0 to 3. Cut across the circle by unfolding your own enfolding from 3 to 4 and move forward clockwise from 4 to 7. This can be called a reciprocal creative inversion or



a *coincidence of opposites*. Then, cut back across the circle again a second time, from 7 to 0, such that you have closure and you can repeat the same motion again, and again. This motion of dividing the circle into two different parts through two intersecting double diameters represents, in essence. the mean arithmetical/geometrical action of an axiomatic change. It is as if you had gone through a back flip inversion on yourself, outside of yourself and back within yourself again, in a continuous way. This invisible motion includes a double twisting and rotating motion from 0 to 3 counterclockwise and then clockwise from 4 to 7, back, to 0 to such an effect that your motion forms a Moebius strip curvature of coincidence of two opposite directions and dimensions at the same time. Look at this as the metaphor of an axiomatic transformation inside of the human mind.

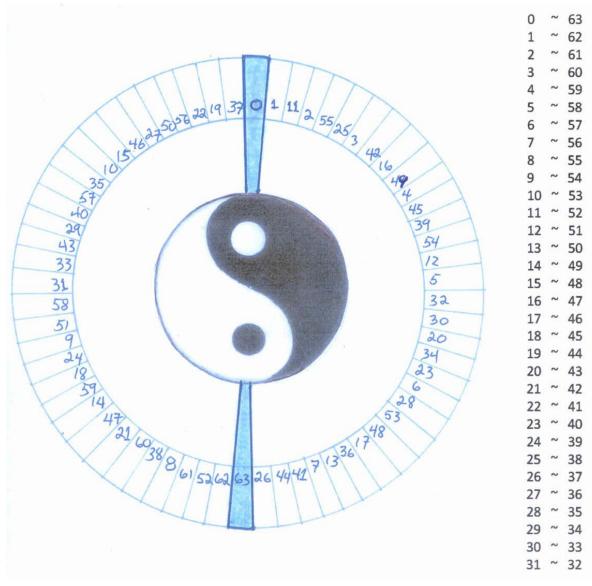
The intention of Fu Xi is not merely to demonstrate, but to also perform the actual change of how the human mind causes its own axiomatic transformation *in Imago Viva Dei* by generating a cyclical ordering process, which goes through a change of dimensionality by way of a *closed continuous inversion within itself*. Leibniz explained this process to Father Bouvet in the following manner:

"But my main object, my Reverend Father, has been to furnish you with a new confirmation of the Christian religion with regard to the sublime matter of the Creation, by a basis which in my opinion will be of great weight amongst the philosophers of China and perhaps to the emperor himself, who loves and understands the science of numbers. To say simply that all numbers are formed by combinations of unity and nothingness [i.e., one and zero], and that nothingness is sufficient in order to diversify them [i.e., numbers], that would seem as credible as saying that God has made all things from nothingness, without making use of any primary matter, and that there exist only these two first principles, God and Nothingness: God for perfections, and Nothingness for imperfections or voids [devoid] of essence [orig. 'vides d'essences']."²²

²² <u>Leibniz-Bouvet Correspondence</u>. February 15, 1701 Leibniz letter to Bouvet. This is a nice goodbye to the hylomorphic Aristotelian and Aquinas "prime matter" principle.



This is another way of saying that in the beginning God coincided with nothingness and everything was created in the manner that Cusa described; that is, by enfolding Himself within unfolding nothingness, God created everything in the best of all possible worlds.



Variation on the *I Ching* reciprocals



The sixty-four Fu Xi hexagrams express the same principle of action and change from love of oneself to love of others and back where all the reciprocal pairs add up to a harmonically distributed unity of sixty-three: the One of the Many.

If you rotate the blue diameter around the above circle in your mind, you will discover that all of the pairs are well ordered reciprocals. Can you see what the ordering process is? What such reciprocals reflect is the unity of balance among wisdom, virtue, and justice; that is what Leibniz called "the science of happiness."²³ Such is the state of unity which exists between two opposed values when they are made to coincide together through an act of inversion which grows by one at each step; which means that the fundamental characteristic of progress in the development of human beings takes place only when the mind of the subject is tuned to a similar pre-established ordering process and when it is turned inside out during the course of an axiomatic performative transformation. This happens of necessity when the society you live in breaks down and the axioms on which it was formerly functioning no longer work and are changed; this is precisely what has been happening to the western nations of the world since World War II and that Lyndon LaRouche warned about over fifty years ago and called for a change.

When that happens in human history, there comes a point in time when *the worse things are, the better it gets*, because the more the social values of love, justice, and truth become deformed and perverted, the better the chances are that we will bring about a necessary change on the part of the population. Historically speaking, the entire world has presently come to the limit of such an axiomatic predicament in which the present state of the world is in a process of going through an inversion between selfishness and the benefit of the other in a New Peace of Westphalia. This is the epistemological reality underlying the Fu Xi representation of mental creative circular action. But, you don't have to take my word for it. Let's go back to the question of the Leibniz uniqueness of the *internal light of common sense*.

THE LEIBNIZ PROOF OF UNIVERSAL TRUTH

²³ Nicholas Rescher, Op. Cit., p. 141.



The *power of doubling* in *I Ching* is not a power which is given to only a few. Every human being has the power to discover this *higher power*. However, the point to be made is that no animal has such a *power of doubling*. Here is how Leibniz brings us into the domain of this *higher power*:

"However, even if one were to test it a hundred thousand times, by continuing the calculation quite some way, one may very plausibly conclude, and even wager whatever one likes, that this will always be the case, but in spite of all that one never has absolute certainty of it unless one learns the demonstrative reason for it, which mathematicians have discovered. So *inductions* never give a perfect certainty. And it is on this basis, albeit pushed a little too far, that an Englishman has recently wanted to maintain that we are able to prevent ourselves from dying, because (he said) the consequence of this argument does not hold: my father, my grandfather, and my great-grandfather, and all the others who have lived before us, have died, therefore we will die too. For their death has no influence on us at all. The problem is that we resemble them a little too much, in that the causes of their death also subsist in us. For the resemblance would not be sufficient to draw certain consequences without the consideration of the same reasons."²⁴

In fact, what Leibniz is demonstrating is that no amount of repetitive experiment can ever generate, by itself, a universal truth, no matter how many believers there are to defend such an assumption. Too many people have believed, for too long, that such a demonstration is what validates scientific truth. That is nonsense. The only demonstrative reason for the truth of this *higher power* must be a performative demonstration. If no sense perception, deduction, or induction can ever give you a universal truth of anything, how can a performative demonstration do it? This is how Leibniz demonstrates the point by performing it:

²⁴ <u>Leibniz and the Two Sophies: The Philosophical Correspondence</u>, Edited and translated by LLOYD STRICKLAND, Iter Inc. Centre for Reformation and Renaissance Studies Toronto 2011, p. 231.

http://www.amatterofmind.us/

PIERRE BEAUDRY'S GALACTIC PARKING LOT

"Indeed there are *experiments* that succeed innumerable times, and normally succeed, and nevertheless in some extraordinary cases we find that there are instances in which the experiment does not succeed. For example, even when we have experienced a hundred thousand times that iron placed all by itself on water sinks to the bottom, we are not certain that it must always happen like this. And without appealing to the miracle of the prophet Elisha, who made iron swim, we know that an iron pot can be made that is so hollow that it floats, and that it can even carry a considerable load, as do boats of copper and tin. And even the abstract sciences like geometry provide cases in which what normally happens no longer happens. For example, we generally find that if two straight or curved lines continually approach each other, they finally meet, and many people will be ready to swear that this could never fail to be the case. And yet geometry provides us with extraordinary curved lines called *asymptotes* for the reason that, when extended to infinity, they continually approach each other and yet never meet.

"This consideration also shows that there is an *innate light within us*. For since the senses and inductions could never teach us truths that are entirely universal, nor what is absolutely necessary, but only what is, and what is found in particular examples, and since we nevertheless do know some universal and necessary truths of the sciences, a matter in which we are privileged over the beasts, it follows that we have derived these truths in part from what is inside us. Thus one can lead a child to them by simple questions, in the manner of Socrates, without telling him anything, and without making him experiment on the matter, and even without him needing to use the experiences that he has already had, but which could never show him the necessity that he recognizes in these truths through his reason."²⁵

²⁵ *Leibniz and the Two Sophies: The Philosophical Correspondence*, Edited and translated by LLOYD STRICKLAND, Iter Inc. Centre for Reformation and Renaissance Studies Toronto 2011, pp. 232-33.



The point to be made, here, is that no other species except human beings are capable of accessing and performing such an *"innate light within*" that makes you generate *higher powers*. If you have a sense of it, it is through your soul; if you know the reason for it, it is through your mind. No animal has such a power as can be discovered in LaRouche's economics.

ON THE SECRET OF LAROUCHE'S ECONOMICS

"Because economics is not, "economics": Economics is man's relationship to nature, man's relationship to the universe, per capita. It's the ability of the individual to survive; it is longevity; it is cultural conditions of life; it is science; it is Classical art that ennobles the spirit. This is what economics is. And we've taken that away. We are poorer, much poorer, than we ever were before.... What you have to do, is think of yourself as an angel; not a family member, but an angel. Because you were born, and you're going to die. You've got to think about that. Not about your pleasure in life, not about the money in the bank, not about the entertainment you receive, not about the neighborhood you live in; but you've got to think about the coming and going of your personal life, because you're coming into a period of time when that's all that really counts. Bank accounts will be wiped out for most people. Savings will be wiped out. If you sit there, and wait, and try to fend off the storms, and say "What do I do with my money?" or all these kinds of things, there are no individual answers to these questions. There is no safe place to run to; there is no place to hide! The epidemics and the financial crisis will hit all...."

[Lyndon LaRouche, Video: Jan 17, 1998 ICLC/Schiller Institute conference, https://larouchepub.com/lar/1998/lhl_top_1_percent.html]



The current American system of political economy still has the immense potential for a breakthrough in human civilization and has the potential to realize its destiny by putting an end to its own self-interest first; that is, by putting an end to the absurd attitude of wishing to be number one and the best model for mankind. America must change its outlook from being selfish to becoming, once again, a beacon of hope at the service of others. This means: no more exceptionalism.

The American system will find its ultimate purpose following Lyndon LaRouche's idea of peace through development for the entire world by developing the power of discovering and of telling the truth behind all hidden and lying underlying assumptions; that is the only truth which will liberate mankind from its present oligarchical system of *going along to get along*; that is why the truth must successfully pass the test of taking a stand against *public opinion*.

Public opinion is what controls the behavior of the majority of the population because the general population has no moral courage to confront it. Thus, people find themselves in a paradoxical conflict of being "*damned if you do and damned if you don't*" within the confined control of the mass media of information and their paid-off government leaders. How can people break out of such a paradoxical straightjacket? The question is: How can people discover inside of themselves the liberating force of solving the paradox whereby *self-interest can only be satisfied through the benefit of others*?

How can the eight diagrams of Fu Xi's *I Ching - The Book of Change* represent a key to understand the Confucian unity between mind and nature? An effective way to make that original connection is to compare the Fu Xi trigrams with musical notes. Solid lines — represent *yang* notes, while broken lines - represent *yin* notes. All numbers expressing those musical notes are pre-determined or pre-established harmonically through an ordering of octaves which are generated by the series of the doubling power of two: 1, 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096, representing as many octaves of the musical system as are needed to represent the ordering of waves reflecting the creative process within which one can generate all possible combination of musical arrangements. The significance of each note is that it has a power to change the human soul depending



on how it is played and where the notes are placed in the musical score. The same principle applies to the 64 hexagrams of *I Ching – The Book of Change*.

CONCLUSION: THE NECESSITY OF NATURAL THEOLOGY

Leibniz based his discovery of Fu Xi's trigrams and hexagrams on his art of combination and on his search for universal characteristics as a means for discovering a common denominator of universal human understanding between the East and the West. He believed that it was possible to unify human thinking and understanding by involving the Confucians of China and the Christians of Europe into a dialogue of culture on the subject of natural theology. He spent his last years of research cultivating this relationship among his correspondents in the hope that he could revive Christian natural theology with the help of the Chinese. Leibniz postulated his most significant hypothesis of Chinese culture in the form of a question that asked: "Consequently, can we not say that the *Li* of the Chinese is the sovereign substance which we revere under the name of God?"²⁶

Leibniz recognized that the ultimate question of human civilization was the mutual benefit in the exchange of creative thinking through axiomatic change between the cultures of Europe and of China in accordance with the principle of the Peace of Westphalia. The benefit of the other is the necessary vaccine that inoculates against all self-centered viruses feeding geopolitics, conflicts, and war.

Unfortunately, the western world's mistaken focus on Aristotelian deductive logic as opposed to Platonic reason has destroyed in people the ability to discover the singularities, ironies, and poetry of true natural religion through the powerful investigative connections between man, nature, and God. As a result of this lack of devotion to true ideas, and to what LaRouche called "economics," the focus on money and power replaced virtue and knowledge with the resulting destruction of civilization. The correction to be made, here, is the restoration of natural theology. The Chinese replication of their natural theology among western thinkers would go a long way in restoring to the world the divine nature of the benefit of the other as

²⁶ Daniel J. Cook and Henry Rosemont, Jr. in Gottfried Wilhelm Leibniz, <u>*WRITINGS ON CHINA*</u>, Open Court, Chicago and La Salle, Illinois, 1994, p. 83.



the very foundation of peace and development for all of mankind as opposed to irreconcilable positions between opposites which lead to war.

ADDENDUM: THE LEIBNIZ RECKONING PROCESS OF *I CHING* HEXAGRAMS WITH BINARY ARITHMETICAL WAVES FROM 0 TO 256

000000 - 0

000000 = 0			
000001 = 1	010001 = 17	100001 = 33	110001 = 49
000010 = 2	010010 = 18	100010 = 34	110010 = 50
000011 = 3	010011 = 19	100011 = 35	110011 = 51
000100 = 4	010100 = 20	100100 = 36	110100 = 52
000101 = 5	010101 = 21	100101 = 37	110101 = 53
000110 = 6	010110 = 22	100110 = 38	110110 = 54
000111 = 7	010111 = 23	100111 = 39	110111 = 55
<u>001000 = 8</u>	011000 = 24	101000 = 40	111000 = 56
001001 = 9	011001 = 25	101001 = 41	111001 = 57
001010 = 10	011010 = 26	101010 = 42	11I010 = 58
001011 = 11	011011 = 27	101011 = 43	111011 = 59
001100 = 12	011100 = 28	101100 = 44	111100 = 60
001101 = 13	011101 = 29	101101 = 45	111101 = 61
001110 = 14	011110 = 30	101110 = 46	111110 = 62
001111 = 15	011111 = 31	101111 = 47	111111 = 63
<u>010000 = 16</u>	100000 = 32	110000 = 48	1000000 = 64
1000001 = 65	1010001 = 81	1100001 = 97	1110001 = 113
1000010 = 66	1010010 = 82	1100010 = 98	1110010 = 114
1000010 = 66 1000011 = 67			1110010 = 114 1110011 = 115
	1010010 = 82	1100010 = 98	
1000011 = 67	1010010 = 82 1010011 = 83	1100010 = 98 1100011 = 99	1110011 = 115
1000011 = 67 1000100 = 68	1010010 = 82 1010011 = 83 1010100 = 84	1100010 = 98 1100011 = 99 1100100 = 100	1110011 = 115 1110100 = 116
1000011 = 67 1000100 = 68 1000101 = 69	1010010 = 82 1010011 = 83 1010100 = 84 1010101 = 85	1100010 = 98 1100011 = 99 1100100 = 100 1100101 = 101	$1110011 = 115 \\ 1110100 = 116 \\ 1110101 = 117$
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1000011 = 67 $1000100 = 68$ $1000101 = 69$ $1000110 = 70$ $1000111 = 71$ $1001000 = 72$ $1001001 = 73$ $1001010 = 74$ $1001011 = 75$ $1001100 = 76$ $1001101 = 77$	1010010 = 82 $1010011 = 83$ $1010100 = 84$ $1010101 = 85$ $1010110 = 86$ $1010111 = 87$ $1011000 = 88$ $1011001 = 89$ $1011001 = 90$ $1011011 = 91$ $1011100 = 92$ $1011101 = 93$	1100010 = 98 $1100011 = 99$ $1100100 = 100$ $1100101 = 101$ $1100110 = 102$ $1100111 = 103$ $1101000 = 104$ $1101001 = 105$ $1101010 = 106$ $1101011 = 107$ $1101100 = 108$ $1101101 = 109$	1110011 = 115 $1110100 = 116$ $1110101 = 117$ $1110110 = 118$ $1110111 = 119$ $1111000 = 120$ $1111001 = 121$ $1111010 = 122$ $1111011 = 123$ $1111100 = 124$ $1111101 = 125$



1010000 = 80	1100000 = 96	1110000 = 112	10000000 = 128
10000001 = 129	10010001 = 145	10100001 = 161	10110001 = 177
10000010 = 130	10010010 = 146	10100010 = 162	10110010 = 178
10000011 = 131	10010011 = 147	10100011 = 163	10110011 = 179
10000100 = 132	10010100 = 148	10100100 = 164	10110100 = 180
10000101 = 133	10010101 = 149	10100101 = 165	10110101 = 181
10000110 = 134	10010110 = 150	10100110 = 166	10110110 = 182
10000111 = 135	10010111 = 151	10100111 = 167	10110111 = 183
10001000 = 136	10011000 = 152	10101000 = 168	10111000 = 184
10001001 = 137	10011001 = 153	10101001 = 169	10111001 = 185
10001010 = 138	10011010 = 154	10101010 = 170	10111010 = 186
10001011 = 139	10011011 = 155	10101011 = 171	10111011 = 187
10001100 = 140	10011100 = 156	10101100 = 172	10111100 = 188
10001101 = 141	10011101 = 157	10101101 = 173	10111101 = 189
10001110 = 142	10011110 = 158	10101110 = 174	10111110 = 190
10001111 = 143	10011111 = 159	10101111 = 175	10111111 = 191
10010000 = 144	10100000 = 160	10110000 = 176	11000000 = 192
11000001 = 193	11010001 = 209	11100001 = 225	11110001 = 241
11000010 = 194	11010010 = 210	11100010 = 226	11110010 = 242
11000011 = 195	11010011 = 211	11100011 = 227	11110011 = 243
11000100 = 196	11010100 = 212	11001000 = 228	11110100 = 244
11000101 = 197	11010101 = 213	11100101 = 229	11110101 = 245
11000110 = 198	11010110 = 214	11100110 = 230	11110110 = 246
11000111 = 199	11010111 = 215	11100111 = 231	11110111 = 247
11001000 = 200	11011000 = 216	11101000 = 232	11111000 = 248
11001001 = 201	11011001 = 217	11101001 = 233	11111001 = 249
11001010 = 202	11011010 = 218	11101010 = 234	11111010 = 250
11001011 = 203	11011011 = 219	11101011 = 235	11111011 = 251
11001100 = 204	11011100 = 220	11101100 = 236	11111100 = 252
11001101 = 205	11011101 = 221	11101101 = 237	11111101 = 253
11001110 = 206	11011110 = 222	11101110 = 238	11111110 = 254
11001111 = 207	11011111 = 223	11101111 = 239	11111111 = 255
11010000 = 208	11100000 = 224	11110000 = 240	<u>10000000 = 256</u>

FIN