



# CUSA, KEPLER, BACH, AND CAUSALITY

How Causal Change is enfolded within the Identity of Opposites.  
By Pierre Beaudry, March 1, 2015



## INTRODUCTION

**“If you don’t take people into an area of intellectual life, with which they are *not* familiar, and if you cannot convince them to accept that which is *not* familiar, then you’re going to lose. So, *no more practical arguments!* Go to the point of reality; go to the point of scientific reality, *exactly as Kepler did, in his design of the Solar System. That’s where we start from, we explain everything in terms of the organization of the Solar System.*” Lyndon LaRouche, *Morning Briefing*, February 22, 2015.)**

The great 17<sup>th</sup> Century philosopher, Gottfried Leibniz, whose profound discoveries inspired the authors of the American Constitution, defined causality as a principle of self-generating action, thereby establishing the process of creative change as the reason why something exists the way it is and not otherwise. Such a definition, however, does not necessarily imply a succession in time or that the cause is outside of the effect, but does imply an intention of change. The error I made for a long time was to look for causality in wrong places and in wrong things. I first looked for something unattainable which I presumed to be located outside of

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the universe altogether, and later, I looked for an objective mechanical force located inside of the universe. In both cases I was wrong, because neither of these two approaches was right, since both exclude the crucial function of mind and change within the universe. Consequently, both my theological approach and my physical approach to causality were wrong, because of what was missing.

Causality must include the power of mind and its ability to change not only itself, but also the universe. As Lyn once put it, the issue is located in the creative power of irony; that is, in "[\*The Gravity of Economic Intentions\*](#)." In other words, it is the universal, galactic, and solar system, organized in accordance with the Intention of God's Mind, that has created the human mind in such a way that, once developed, only an individual human mind has the awesome power to cause efficient changes in the Solar System, the Galaxy, and the Universe as a whole.

Thus, causality has to be found in a self-generating process of change like a self-governing power of, by, and for future human beings. That's what it means to live in the Solar System. Changing the system has to be the intention of causality; and, unless people pay attention to that intention of change, they will never understand anything about causality or about the Solar System for that matter. In that sense, a Kepler-Bach-Hamiltonian Constitutional Republic has to be one of the best examples of how causality functions as a creative force for change. Thus, Causal Change, like America, is not a place; it is an ideal of mankind enfolded within the Identity of Opposites. This is probably the reason why Lyn pointed out, on February 16, 2015, that "*if mankind does not perform the function of mankind, as a creative force then, there's no force to make the existence of the Solar System worthwhile.*"

## 1. HOW KEPLER'S MISSING PLANET WAS A DISCOVERY OF CAUSAL CHANGE

*"All the wise agree that possible being cannot come to be actual except through actual being; for nothing can bring itself into actual being, less it be the cause of itself; for it would be before it was. Hence, they said that that which actualizes possibility does so intentionally, so that the possibility comes to be actual by rational ordination and not by chance."*

Nicholas of Cusa, [\*On Learned Ignorance\*](#), II, Chapter 9.

The reason why causality, forecasting, and intention are the same thing is because they each reflect the directionality and purpose of a process of creative change which takes place by time reversal. Change in directionality means creative change, because creative change implies dissymmetry. For instance, the discovery of a principle expressing the quickest time, as

demonstrated by Pierre Fermat, is a true principle of causality, because light knows when to change the direction of a refracted beam when it goes from one medium to another.

If such a principle of causality is expressed within the Solar System, this means that it must also be expressed by the Solar System and for the creatures living inside of that Solar System as well. This principle of causality is the principle that Kepler discovered within the “gap” of a missing planet between Jupiter and Mars; that is to say, the discovery of an anomaly that could not be understood and could not be explained otherwise than by some axiomatic transformation inside of the Solar System and for and by the Solar System as a whole. The question, therefore, is: “How does that Keplerian “gap” express causality?”

First of all, how did Kepler know that a planet was missing inside of the Solar System, and how did he determine that it must have been located between Mars and Jupiter? This may appear to be a strange question to investigate from the standpoint of today’s pragmatic astronomers, but it was not for Kepler, who understood that the Solar System was following a harmonically ordered divine plan, an intention that included the existence of such a “gap” which did not fit in with any of the known harmonic proportions that had been created there in the system as a whole. That “gap” was the expression of something impossible, an anomaly. Kepler understood that the only way to answer the riddle of this puzzling “gaping change” was to be found through an investigation into the intention of God’s Mind. How did he do that?

Throughout history, there have been many professional astronomers making all sorts of speculative remarks about the possibility of discovering new planets in our Solar System, but none of them identified the “gap” between Jupiter and Mars as being an anomaly worth investigating for physical, epistemological, or even theological reasons, except Kepler. And, what is significant about Kepler’s approach was that he made it a question of divine knowledge, a question of epistemological theology. As he stated at the beginning of his original Preface to the reader of *Mysterium Cosmographicum*:

“There were three things in particular about which I persistently sought the reasons why they were such and not otherwise: the number, the size, and the motion of the circles. That I dared so much was due to the splendid harmony of those things which are at rest, the Sun, the fixed stars and the intermediate space, with God the Father, and the Son, and the Holy Spirit.” (Johannes Kepler, *Mysterium Cosmographicum*, The Secret of the Universe, Translated by A. M. Duncan, Abaris Books, New York, 1981, p. 63)

What is amazing about Kepler’s introductory statement is that he warns the reader about something that he is about to tell him on the subject of his daring new hypothesis for the Solar System. Why is he warning the reader? What is so important about the three reasons behind the “number, the size, and the motion” of the planetary orbits of the Solar System that he should approach the reader with such caution? In fact, Kepler is warning the reader about his having made a complete reevaluation of his knowledge up to that time, and that he, the reader, must also

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abandon the mathematical method that he, Kepler, had followed up to that point. Kepler added the following surprising performative confession. It is essential to reproduce it, here, in its entirety. Kepler wrote:

“In the beginning I attacked the business by numbers, and considered whether one circle was twice another, or three times, or four times, or whatever, and how far any one was separated from another according to Copernicus. I wasted a great deal of time on that toil, as if at a game, since no agreement appeared either in the proportions themselves or in the differences; and I derived nothing of value from that except that I engraved deeply on my memory the distances which were published by Copernicus. But, as this recital of my various attempts may toss your approval, reader, anxiously to and fro as if on the sea’s waves, which will tire it, you will at last come all the more gladly to the causes explained in this little book, as though to a safe harbor. Yes, I was confronted repeatedly, and my hopes were raised, not only by the other arguments which will follow below, but also by the fact that the motion always seemed to be in step with the distance, and where there was a great gap between the spheres, there was also one between the motions. But if (thought I) God allotted motions to the spheres to correspond with their distances, similarly he made the distances themselves correspond with something.”

“Since, then, this method was not a success, I tried an approach by another way, of remarkable boldness. Between Jupiter and Mars, I placed a new planet, and also between Venus and Mercury, which were to be invisible perhaps on account of their tiny size, and I assigned periodic times to them. For I thought that in this way I should produce some agreement between the ratios, as the ratios between the pairs would be respectively reduced in the direction of the Sun and increased in the direction of the fixed stars, as the Earth is nearer to Venus, relative to the size of the Earth’s circle, than Mars is to the Earth, relative to the size of the circle of Mars. Yet the interposition of a single planet was not sufficient for the huge gap between Jupiter and Mars; for the ratio of Jupiter to the new planet remained greater than is the ratio of Saturn to Jupiter; and on that basis whatever ratio I obtained, in whatever way, yet there would be no end to the calculation, no definite tally of the moving circles, either in the direction of the fixed stars, until they themselves were encountered, or at all in the direction of the Sun, because the division of the space remaining after Mercury in this ratio would continue to infinity.” (Ibidem, p. 63 and 65)

The most remarkable aspect of this admission of failure of method is that, as he was rejecting mathematics as a matter of axiomatic foundation, Kepler’s mind was emboldened into adopting the Five Platonic Solids as a means of replacing the axioms of the inappropriate mathematical pathway. In other words, by eliminating the reductionist method of mathematical accounting, Kepler broke with the historical axioms of knowledge which had wrongly erected mathematics on the pedestal of knowledge, as the mother of science, and he decided to make

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*tabula rasa* of all of the false axiomatic assumptions that had dominated science up to that day. In affecting that change, Kepler replaced mathematical measurements by geometrical proportionality. It was the intention behind that very action of rejection which emboldened him into adopting that higher hypothesis, the hypothesis of the human mind being of the “same substance” as universal physical principles: [HOMOOUSIOS](#).

On this matter of consubstantiality of the Holy Trinity, Kepler related directly to the Trinity of God as a matter of epistemological theology and in direct reference to Nicholas of Cusa. In the opening lines to Chapter II of the same book, Kepler noted: “Now God decided that quantity should exist before all other things so that there should be a means of comparing a curved with a straight line. For in this one respect Nicholas of Cusa and others seem to me divine, that they attached so much importance to the relationship between a straight and a curved line, and dared to liken a curve to God, a straight line to his creatures; ...” (Kepler, *Ibid*, p. 93)

Aha! There is the anomaly. In his [On Learned Ignorance](#), Cusa established that all motions in the universe derived from the world-soul through the intentional function of a transformation which goes from enfolding to unfolding as if through a unity of opposites of circular enfolding/unfolding. As he put it: “The world-soul is the first circular unfolding (the Divine Mind being the center point, as it were, and the world-soul being the circle which unfolds the center) and is the natural enfolding of the whole temporal order of things.” (Nicholas of Cusa, [On Learned Ignorance](#), II, chapter 9, Trans. Jasper Hopkins, The Arthur J. Banning Press, Minneapolis, 1985, p. 109.)

Kepler adopted the Cusa idea of the Divine Mind and applied it to his concept of creative causality of the sphere inside of the Solar System. And Kepler continued:

“...and those who tried to compare the Creator to his creatures, God to Man, and divine judgments to human judgments did not perform much more valuable a service than those who tried to compare a curve with a straight line, a circle with a square.

“And although under the power of God this alone would have been enough to constitute the appropriateness of quantities, and the nobility of a curve, yet to this was also added something else which is far greater; the image of God, the Three in One, in a spherical surface, that is, of the Father in the center, the Son in the surface, and the Spirit in the regularity of the relationship between the point and the circumference.” (Kepler, *Ibidem*, p. 93)

This is the means by which Kepler was able to think the unthinkable; that is, to make straightness and curviness coincide and adduce their evidence from such a triply-connected curvature.

Very few astronomers who came after Kepler understood the significance of this axiomatic principle of transformation and dared to replicate it. For example, most astronomers

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do not understand that the pathway of numbers is a mere sense perception illusion. This is where later astronomers like Isaac Newton, William Whiston, David Gregory, Johannes Daniel Titius, and Johannes Elert Bode all made the same mistake by falling into the trap of measuring distances with numbers as opposed to incommensurable proportions. As Bode put it:

“Let the distance from the Sun to Saturn be taken as 100, then Mercury is separated by 4 such parts from the Sun. Venus is  $4 + 3 = 7$ . The Earth  $4 + 6 = 10$ . Mars  $4 + 12 = 16$ . Now comes a gap in this orderly progression. After Mars there follows a space of  $4 + 24 = 28$  parts, in which no planet has yet been seen. Can one believe that the Founder of the universe had left this space empty? Certainly not. From here we come to the distance of Jupiter by  $4 + 48 = 52$  parts, and finally to that of Saturn by  $4 + 96 = 100$  parts.” (Johannes Elert Bode, *Anleitung sur Kenntnis des gestirten Himmels*, 2<sup>nd</sup> edn., *Hamburg* 1772, p. 462. Quoted from [Physics of Solar and Stellar Coronae: G. S. Vaiana Memorial Symposium](#), p. 36)

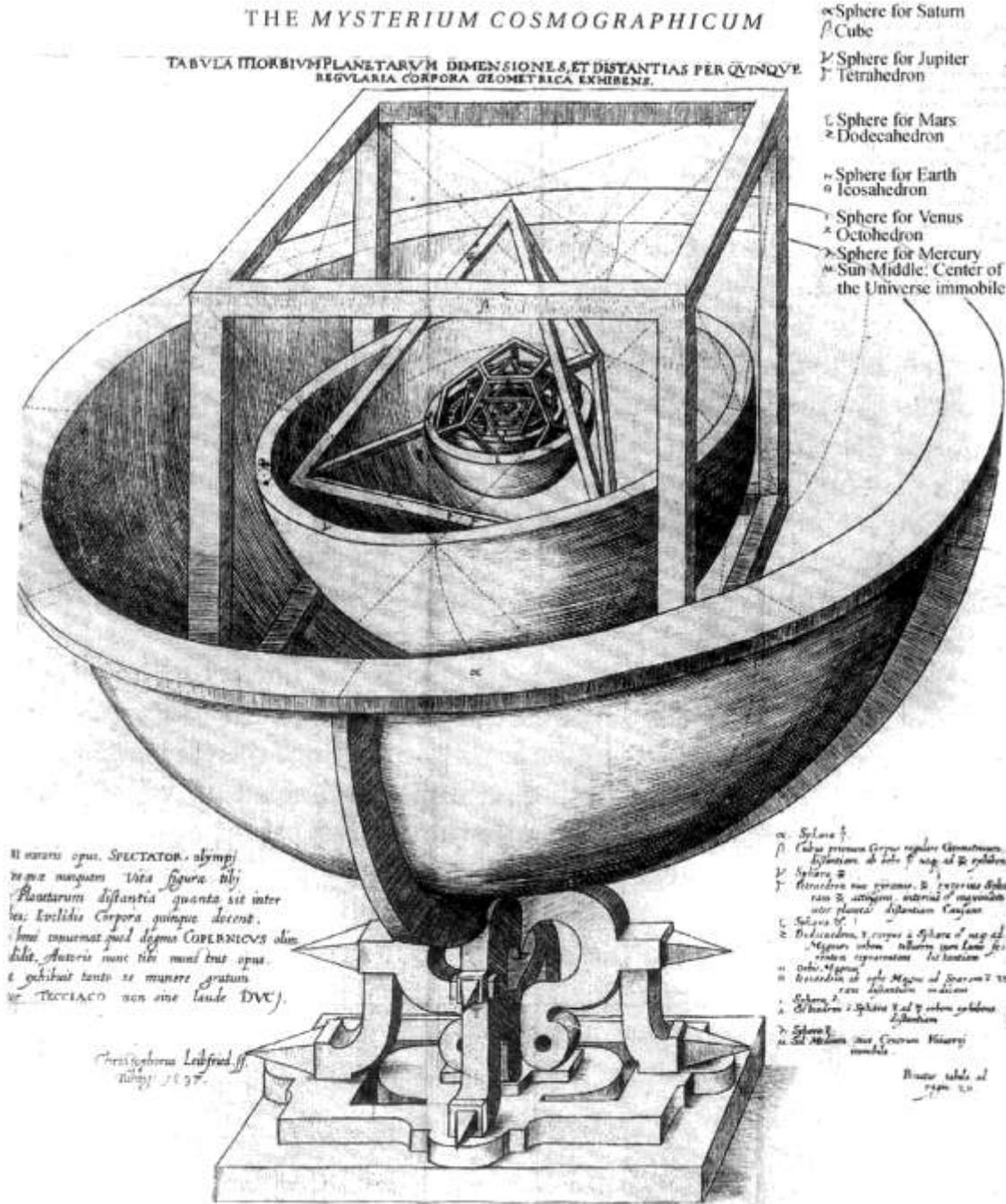
What those foolish astronomers did not realize was that, while they were adding up such numbers, as Kepler warned against, they were falling into the trap of a fallacy of composition in which sense certainty of numbers is as stubborn as sense perception itself. They were as if grasping at shadows on the dimly lit wall of Plato’s cave, and they failed to see that the numbers they were playing with were merely shadows of something that was missing. But, Kepler, on the other hand, had gone a step further, and beyond mathematics by tackling the idea of Cusa’s incommensurable proportionality between the straight and the curved.

Kepler didn’t simply see that some planet was missing in some area of the heavens; he saw that something in the human mind was missing; he saw that there existed a “gap” inside of human knowledge itself that called for understanding the nature of an incommensurable proportion between God the Creator and his creation. Something about his method of enquiry was missing inside of his own head, and such an appreciation of his own mind was the part that was missing from his inquiry into causality.

This performative transformation of the reader’s mind is in direct compliance with Kepler’s axiomatic change between the method of mathematics and the method of theological epistemology, and represents, probably, the most explicit acknowledgement of a discovery of principle that can be found anywhere in the written history of ideas since Nicholas of Cusa. Kepler not only spelled out the nature of that discovery of principle, but also gave the reader the means of replicating the same discovery in his or her own mind.

It is not my role, here, to demonstrate the superiority of Platonic geometry over mathematics, but to simply indicate how Kepler has gone through a successful axiomatic change in his own mind by abandoning mathematics for the more suitable language of metaphor. In a nutshell, Kepler created an axiomatic model of the Solar System based on the axiomatic anomaly between the sphere and the polyhedron; that is, between planetary spherical orbits

circumscribing and inscribing the Five Platonic Solids. That is the crux of the axiomatic Causal Change which takes place when you look into the Mind of God. See **Figure 1**.



**Figure 1** Kepler wrote: “The Earth is the circle which is the measure of all. Construct a Dodecahedron round it. The circle surrounding that will be Mars. Round Mars, construct a tetrahedron. The circle surrounding that will be Jupiter. Round Jupiter, construct a cube. The

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circle surrounding that will be Saturn. Now construct an icosahedron inside the Earth. The circle inscribed within that will be Venus. Inside Venus, inscribe an octahedron. The circle inscribed within that will be Mercury.” (Ibidem, p. 69)

## 2. BACH’S WELL-TEMPERED SYSTEM AND THE ASTEROID BELT

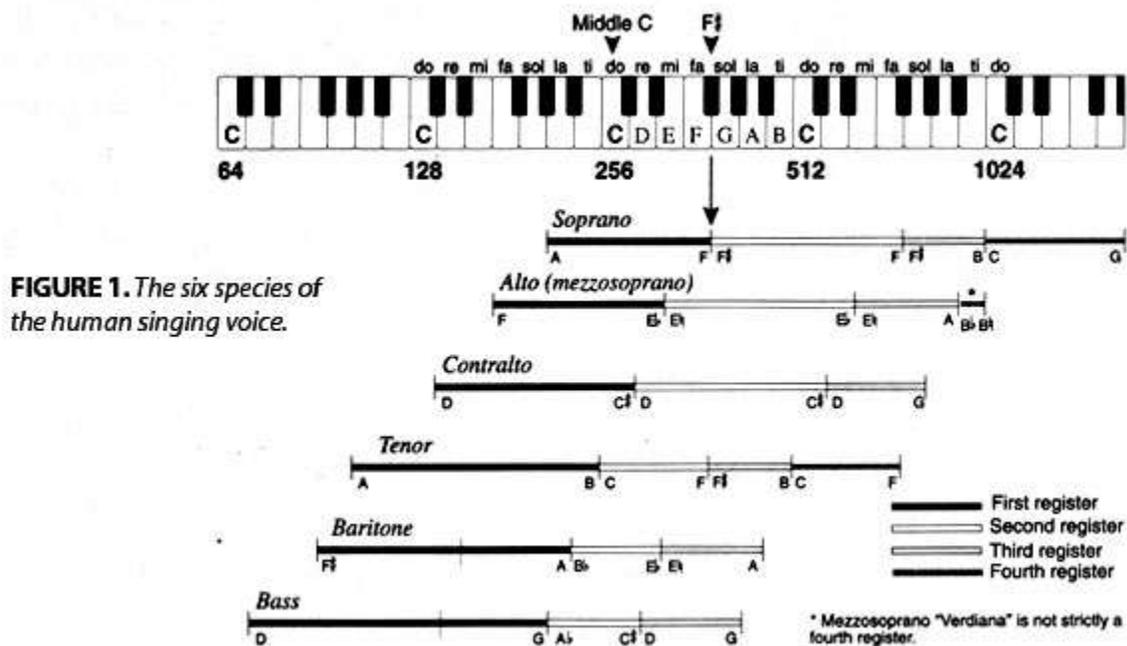
What does the Solar System have to do with music? The answer to that question lies in the “gap” that Kepler identified between Jupiter and Mars. That’s where the secret of the axiomatic change of the human singing voice is also located; that is, through the singularity of F# for the soprano and the tenor voices. The proof of this can be easily demonstrated simply by paying close attention to the sound you hear in your head when you shake it lightly from left to right. This resonating “gap” is the reason why the Solar System is so important to understand and master as a cosmological musical instrument.

The answer to the question of the missing planet between Jupiter and Mars can also be found in the voice register shift of Bel Canto singing. Lyn developed this question at length in his Foreword to the Schiller Institute’s [A MANUAL ON THE RUDIMENTS OF TUNING AND REGISTRATION](#). From the start, Lyn made the point that this question is at the center of the axiomatic difference between two opposite and incompatible world outlooks:

“Through the eyes of the mathematical physicist, what we have noted, as the *natural* characteristics of ‘musical-space-time,’ presents us an extremely significant challenge. In brief, the laws of the universe in which these *natural characteristics* might exist could not be the universe of Descartes, Newton, Kelvin, Helmholtz, Maxwell, or Boltzmann-Wiener. However, it could be a different kind of physical universe, that of Cardinal Nicholas of Cusa, Cusa’s follower, Leonardo da Vinci, Cusa and Leonardo’s professed follower Johannes Kepler, Kepler’s professed follower Gottfried Leibniz, France’s Gaspard Monge, or such followers of Leibniz as Carl Gauss and Bernhard Riemann, Georg Cantor, and Eugenio Beltrami. The case of Kepler’s founding of the first comprehensive mathematical physics, is a very relevant illustration of the point.” ([A MANUAL ON THE RUDIMENTS OF TUNING AND REGISTRATION](#), Schiller Institute, 1992, p. ix)

Here, the point that Lyn is emphasizing is that in a so-called Newtonian universe, orbits of planets could simply be chosen depending on distance, size, and velocity, but in the case of a Keplerian universe, this could not happen; Kepler required that there be an orbit between Jupiter and Mars, an orbit which included “an exploded planet,” otherwise known as the asteroid belt.

Then, Lyn added: “The same argument applies to *vocal polyphony* in general, as also to vocally determined, *natural registration*, and exactly determined, *natural* singing-voice-species register shift.” (Ibid, p. x) In other words, not only is the universe filled with such a musical quality of harmonic orderings, but it is also filled with register shifts in sundry locations within the extended span of the complete electromagnetic spectrum of frequencies, from cosmic and gamma rays to radio waves. The ironic anomaly, here, is that the soprano and tenor voices cannot remain in the dissonant F# position any more than a planet could exist in the gap between Jupiter and Mars, and for the same reason; that is, because they are the same dissonant passage of a register change between two manifolds of different energy-flux-density, which could not co-exist without such a “gap” within the same system.



**Figure 2** [Register shift of the 6 human voices](#). The keyboard shows that the soprano and tenor voices change registers between F and G after Middle C. Those two registers could not exist together without that F# register shift inside of the same system.

From the standpoint of epistemology, it is important to understand the fact that the Bel Canto range of the voice register changes for sopranos and tenor corresponds precisely to the astronomical range of the Asteroid Belt, and that the two regions have an axiom busting function of increasing the energy-flux-density of both the human mind and the Solar System in the same way. This demonstrates that there exists a very intimate and unique relationship between classical Bel Canto and the astronomical nature of the universe we live in.

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Moreover, what must be emphasized, here, is that in all of the six human voices, the placing of the register shift is the location of a clash between two different and opposite manifolds. This is why that shift is the location of a dramatic axiomatic change. It is a clash of two incompatible systems, that is, the coming together of two opposite universes which cannot exist simultaneously; one which exists, but which no longer works, because it is passed and cannot be carried beyond a certain limited boundary condition of existence, and a new one which does not yet exist and which is located beyond that boundary limit, in a higher level of existence, which lies in the future. That's a situation similar to the difference between the bankrupt Atlantic monetary system and the new BRICS economic system.

There may be differences in the value at which each species of voice changes its register, but there is no fundamental difference as to the increase in energy-flux-density in all cases. The key to an axiomatic change is located in the voice register shifts that J. S. Bach had identified in his Lydian division of the well-tempered clavier. See my report, [CHINA AND THE HELIUM-THREE PROJECT FOR PEACE](#).

The point to emphasize, here, is that the nature of the singularity, or the anomaly, that Bach keeps developing throughout his work on the well-tempered clavier, is also located in Mind and, more specifically, in the Mind of the Creator's harmonic ordering of axiomatic dissonances as expressed in the planetary orbits of the Solar System. As Lyn put it in [The Gravity of Economic Intentions](#):

“In Kepler's work, *Mind* and *intention* are qualities which the cognitive powers of the human mind are able to recognize, as what we might rightly term *universal physical principles*. Man recognizes that distinct quality of Mind, and that corresponding *intention*, as underlying certain distinctive qualities of trajectories. The scientist employs such use of the term *Mind*, *intention*, and *universal physical principles*, as of the same set of metaphorical notions, because the *cognitive power of the human is able to recognize the mind and intention expressed by a Keplerian orbit, as the intention of a universal Being of a nature It shares with the human individual cognitive personality*. That image, of the Creator as made in the cognitive image of man, is the mirror reflection, for the scientist, of man as developed by the universe, uniquely, in the image of the Creator, that according to the *intention* of that Creator.” (Lyndon LaRouche, [The Economics of the Noosphere](#), EIR News Service Inc., Washington D. C., 2001, p. 195.)

The cognitive power of the human mind, as reflected in the intention of a Keplerian orbit where a planet could not come to exist within the Solar System, is nothing but an expression of the divine cognitive power of causality as expressed by axiomatic changes in the development of the human mind. The power of such Causal Change is located in the explicit intention that forces the individual human mind to recognize the nature of the paradoxical irony, which cannot be

expressed by sense perception, but which can only be recognized through the experimentation of such a change by the performative cognitive power of Mind.

For instance, when you observe the Asteroid Belt, as the locus of an axiomatic change between the inner planets and the outer planets, you discover that the gas giants are a completely different species of planets. Among the more obvious differences, the observer will notice that they are all much larger than the inner planets, they have no hard surfaces, and they possess

multiple moons. That, in itself, is sufficient to indicate that a complete axiomatic change has taken place within the Solar System as a whole, and that the Asteroid Belt orbital range represents a special condition of existential change, such that the characteristic properties of the inner planets can no longer exist beyond that range, and that the outer planets must display a completely different set of characteristic properties if they are to exist.

The action of placing of the voice, that is to say, the act of analysis situs or of the geometry of position of the subject of change, as the mental equivalent of a physical change inside of the Solar System, is the most significant aspect of this experiment.

When I say that what is to be discovered is the anomaly of an axiomatic change, my intention is to say that the idea of the change and the actual change must take place at the same time.

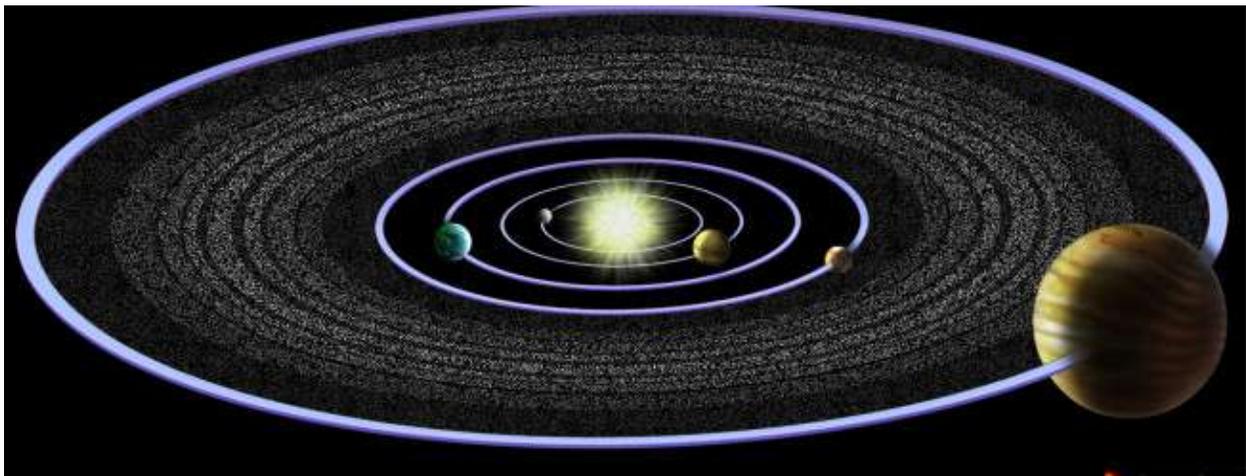


**Figure 3** Luca della Robbia, *Cantoria right side relief*, Museo dell' Opera del Duomo, Florence. Note how the boy on the left is singing in the third register, while the other two boys are singing in the first and second registers, respectively.

A mere descriptive representation of this process is not sufficient. This “performative” action is the crucial aspect of axiomatic-least-time-action in the universe, because it reflects the sufficient reason that causes the change as soon as the idea takes physical form. See how this “performative” action is generated in the relief sculpture of Luca della Robbia. See **Figure 3**

Thus, in matters of principle, it is not sufficient to say that the idea of an axiomatic change must express both the process of the original discovery of an idea and the process of communicating that discovery to another mind. A third property must be added, which is that the process also causes an actual change in the subject it is designed to affect.

The irony, therefore, is that Kepler didn’t know about the asteroid belt. He only knew that a planet should have existed between the orbits of Jupiter and Mars, but it didn’t. On March 28, 1802, Olbers discovered the asteroid Pallas, the second asteroid to be discovered after Giuseppe Piazzi discovered Ceres in 1801. He wrote: “Could it be that Ceres and Pallas are just a pair of fragments ... of a once greater planet which at one time occupied its proper place between Mars and Jupiter?” ([Vesta: Facts About the Brightest Asteroid](#)) Olbers discovered [Vesta](#) five years later in the location predicted by Carl Friedrich Gauss, who confirmed the finding in 1807. It was Olbers who named the celestial region the “Asteroid Belt” and who first confirmed that Kepler’s missing planet had exploded. Up to this day, there are no serious physical explanations for the exploded planet in that region of the sky, because nobody has yet been able to explain how and why something can exist without actually being there.



**Figure 4** The Asteroid Belt is the Key that unlocks the secret of the Solar System. (Picture from NASA)

### 3. WHY AXIOMS ARE MADE TO BE BROKEN

The reason why axioms are made to be broken is because the universe is in a state of development and must improve to become more perfect in time. Such changes, therefore, are based on a *foreseeable future natural conflict function* which has the power of transforming the human subject by permitting him to judge how one can go from a lower to a higher state of existence, by going from lesser to better, from the top down. The question is: How can that be determined in a universal way and ahead of time?

Plato devised a wonderful means of causing lawful change inside of the human mind by using a pedagogical device he called the “Socratic Dialogue.” One of the best illustrations of such a dialogue is found in Plato’s *Republic*, and is known more generally as the allegory of Plato’s Cave. The principle of Plato’s Cave is based on a lawful change that takes place in the mind of a person when, after being convinced that sense perception is truthful, he is made to reject the false underlying assumption that made him believe it was true. The shock of discovering that such an assumption was wrong, and no longer has the axiomatic authority that it formerly had, causes him to become completely perplexed and forces him to spend a more or less long period of time in a state of confusion and uncertainty, until a higher truth makes its way to his liberated consciousness.

Thus, an axiomatic change is the change in assumptions introduced by a second, free and critical voice in a dialogue, which you can also have with yourself. Considering that you have agreed to be a cave dweller, and that a second voice is introduced in order to change your thinking, you might now be ready to change and be receptive to new and more effective ideas. The change comes from this higher thinking process, which is a more advanced idea that didn’t exist before, and which has come to replace your previous assumption based knowledge. This higher knowledge works, simply because it is more truthful than your old ideas, which no longer work. So, there you are without being there. As a result, everything that you thought was true before has to be thrown out, and the self-critical process of getting rid of your old persona has, itself, become the true subject of your sovereign identity. As Lyn put it, this is like an impossible position to be in:

“The Socratic method of questioning the naïve assumptions then proceeds to drive the examination of the assumptions themselves to the extremes, so that the student realizes that the universe does not work according to the particulars of any set of assumptions. There are no particulars, no fact or any particular words to represent them, which cannot be questioned, and potentially dismissed. This method examines first the assumptions of any system such as Universe A, then the assumptions underlying those assumptions, and so on, to the boundary of all layers of successively underlying assumptions.

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“At this point, thought is focused directly upon the mind itself. Only the mind remains, which can still be seen to be functioning clearly, as the continuum ‘behind’ all the assumptions. The mind at this point sees itself as the prototypical working of the universe, above and beyond any particular.” ([A MANUAL ON THE RUDIMENTS OF TUNING AND REGISTRATION](#), Schiller Institute, 1992, p. 35.)

When your thought process is focused on mind in this manner, you become like the stage director of an epistemological drama taking place on the stage of your imagination. Who are you after all of your assumptions have disappeared? You are the power to project a cast of characters on the stage of your mind and you have the ability to control the different dialogues your mind can have in a cross-voice manner like a play, a poem, a musical composition, a Platonic dialogue, or a Solar System.

In this way, by time reversal, you make the discovery that your mind is the *One of the Many*, as Plato discussed this ontological paradox in his *Parmenides* dialogue. As Lyn demonstrated, this simple thought experiment of Plato’s Cave is one of the best proofs of the truthfulness of the Socratic dialogue, whereby every belief may be investigated for its false assumptions and be submitted to the test of universal truth.

I would add that, implicitly, the Socratic dialogue also reflects the resolution of the conflict of opposites as Cusa showed in his understanding of the unity of opposites, otherwise known as the process of enfolding inside of God’s Mind. This is also the role of Chorus in an Aeschylus or Shakespeare play, which acts as the beacon of creative causality shedding light on all matters of false assumptions, and where all matters of truth are made accessible for the spectator’s consideration by his self-consciousness. Here is how the cross-voice might look like in a Greek drama. Think of how the Greek Government, currently, has to solve the debt crisis of all European nations and apply the idea of the following dialogue to their negotiations with the EU.

Take the example of Aeschylus’s *Eumenides*, notably, the dialogue between Chorus and Athena, which relates to how the Furies are axiomatically transformed into Eumenides at the end of the play. Note how Athena causes the Furies to make an axiomatic change:

*Chorus: Lady Athene, what is this place you say is mine?*

892

*Athena: A place free of all grief and pain. Take it for yours.*

*Chorus: If I do take it, shall I have some definite powers?*

*Athena: No household shall be prosperous without your will.*

*Chorus: You will do this? You will really let me be strong?*

*Athena: So we shall straighten the lives of all who worship us.*

*Chorus: You guarantee such honor for the rest of time?*

*Athena: I have no need to promise what I cannot do.*

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*Chorus: I think you will have your way with me. My hate is going.* 900

*Athena: Stay here, then. You will win the hearts of others, too. ”*

(*Aeschylus I: The Eumenides*, translated by Richmond Lattimore, University of Chicago Press, Chicago, 1953, p. 166. See my report: [AESCHYLUS' 'THE EUMENIDES'](#))

Thus, problems are solved by the destruction of underlying assumptions and by the construction of new and more truthful ideas that have not existed in any physical form before; that is to say, by changing the universe from the top down, from the future higher manifold of a creative mind. Once the Furies had accepted to rule over “*A place free of all grief and pain,*” and had decided to run households with that future intention to “*strengthen the lives of all ...,*” then, they became axiomatically transformed into Eumenides, because their traditional Zeusian hatred had been eliminated from their domestic war arsenal, in order to “*win the hearts of others.*” And, once they had accepted that mission of acting for the benefit of others, there was no longer any possibility of turning back.

## CONCLUSION

These are the anomalies of principle, which act as the mechanisms of axiomatic transformers in human history. This is the opposite of regime change. Unless you tune yourself to such anomalies most of the time, and form the habit of attacking underlying assumptions in yourself and in others, starting at a very early age, you will tend to fall into the opposite habit of “*going along to get along,*” in order to avoid speaking out the truth when it is necessary to do so. If that were the case, then, just remember: “*You can't look someone in the eye and lick his ass at the same time.*”

Kepler discovered the secret of the missing planet between Jupiter and Mars, by making such a non-linear leap of passing from the higher manifold of the sphere to the lower manifold of the polyhedron. See my report on the curved and the straight: [HOW TO DELIGHT YOUR MIND WITH KEPLER'S SNOWFLAKE](#). The secret of Kepler, therefore, lies in discovering how to construct a universe based on such *incommensurable non-linear proportional transformations*. This is a very ancient form of lawful constructive geometry, which has been at the center of Plato's, Cusa's, and Kepler's theological epistemology for a long time, but which has also the prospect of a beautiful Renaissance in the immediate future, because it is immortal.

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