COMMENTS ON THE LYM ANIMATIONS OF KEPLER'S NEW ASTRONOMY

Class with Bogotá LYM.
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2. WEDNESDAY, OCT. 11, 2006. New Astronomy Chapter 1 to 4, HOW TO PROVE THE FALLACY OF GEOMETRIC MODELS.

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The most interesting part of the proof of the fallacy of geometric models lies in the fact that geometry tends to make you believe, falsely, that you have succeeded in explaining the physical phenomenon, while, in reality; it should show you that you have failed, and by how much. So, the question is not how do I succeed in making a better geometric model and make it work more successfully, but what causes the physical phenomenon to work the way that it does? It is the failure of the apparent geometrical success that prompts the question: what is the underlying generative principle that causes the **motions of the planets**? Therefore, a good geometric model is one that shows you how it failed by design, not by mistake. The Ptolemy, Copernicus, and Brahe models failed by mistaken sophistry. Kepler's model failed by design. What's the difference? Take the case of the Mars anomaly.

The Mars anomaly is much different than what people generally think it is. Anomalies are not simply kinks or aberrations that require an explanation. **Anomalies are true ironies or ontological paradoxes.** From the standpoint of ontological axiomatic change in the universe, ontological paradoxes are your lifesavers. Why? Because they are the crucial windows into universal physical principles.

For example, take the retrogression of Mars. Once you have discovered what it is, as Kepler represented the animation of its 16-year cycle between 1580 and 1596, on page 119 of {***New Astronomy***}, the tendency is to say, Ahhh! I see! That's what it was; and then, you consider the problem as being successfully solved, because you now have a representation of the anomaly, and you have a rational explanation for it with respect to opposition. [**See the opposition in the animation of Equivalence of Hypotheses**] So, on page 119, Kepler gave us a complete epicycloidal motion, for a period of 16 years, and which has been freed from the cumbersome complications and difficulties of the epicycles. And then, you come under the illusion that the empty medium of space is if fact Cartesian space. However, even the translator of Kepler noticed that something important had occurred when Kepler described this abstract motion. So, instead of being happy with this "accurate depiction of the motions of the star Mars", Kepler rejected the model. Why?

Did he reject the model because it implied that the earth was not moving? No. It was because he was convinced that he had to abandon the idea of looking for a geometrical model of the planetary system and that; instead, he had to find out what the non-linear causes were that really moved the planets. This is what an axiomatic change is about. In other words, as soon as he discovered that geometry gave him the illusion of success, he had discovered that he had to build his astronomy not on geometry but on physics. He knew that his own model (on page 119) was the limit that geometry could go to, and that it could go no further. Only then was he able to free himself from the illusions of geometrical shadows and concentrate on physical causality.

Moreover, just when Kepler discovered that he might have had a working geometric solution to the problem, he realized that he could not account for the discrepancies in the different years of Mars. So, he had to cut an average of 780 days, then 786 days. Statistically speaking, one could also argue that since the three models of Ptolemy, Copernicus, and Brahe were equivalent, therefore, the elliptical model of Kepler might be the most perfect one, since it expressed the best average pathway between the four. Why didn't Kepler accept that?

Why is it that those statistical measurements did not reinforce him in his conviction that he had the best model? Why did he prefer to complicate his live, and our own, and decide to make the axiomatic jump from geometry to physics, instead? That is the nature of Plato's cave. He knew that statistics were a form of sophistry. The same type of sophistry that the entirety of science is based on today. That is precisely the irony of the whole matter. Whenever you think you have a reasonable geometric explanation for a physical phenomenon, and you think you can claim victory over ignorance by cutting an average, remember the wise words of LaRouche on the subject of synthetic geometry: "{***It is not the image which conveys the idea; it is recognizing that the image is deceptive in pretending to provide a solution when its failure to accomplish that prompts the discovery of the needed next question. E.g. discovering the elliptical orbit, is not a solution; it begs the question of what is generating the ellipse.***}" In other words, the question is not, what is the form of the motion of Mars, but rather, what is the cause of the motion of Mars? What is the source of projection outside of Plato's Cave? I like to think of it as the {***original sin function***}, like Pope Jean-Paul II identified it when he said: "{***Oh wonderful sin that gave us such a great Redeemer!***}" How the hell can a failure be a lifesaver?

Examination of Part I, Chapter 2 – 4. (**See animation Part I**) This section of the animation about the three models and the similarity of their conclusions is very powerful. Why is the opinion of the three most renowned astronomers not considered to be true? Why are they fallacies of composition? Precisely because they do not lead to inquiring about the causes of the planetary motions. They do not lead to physics.

This is an excellent animation that really gets the idea of that anomaly across. Not the Mars regression anomaly but the anomaly of synthetic geometry. I find this to be the best animation of the whole program, because it illustrates exactly Lyn's paradox that I just stated. How can success fail? How can we accept the deceptive appearance of a successful conclusion? Here you have three models that come to the same conclusion without their authors consulting each other. Is that not enough of a proof that they are showing different aspects of the true pathway of Mars? How can you go wrong when three of the greatest astronomers come to such an agreement in three different ways? You have to be pretty confident to go against that.

Lastly, I found the idea of the "**equant**" unclear and confusing. I am totally perplexed, and I will need you to explain this to me. I am not sure what it is, and I don't want to give it a spin. So, I have more questions: "**What is an equant? What is Ptolemy's equant?"** Can any one tell me? The animation uses it but doesn't say what it is. Furthermore: "**Is the equant the geometric equivalence between the semidiameters of the eccentric and of the concentric, by means of which the planet appears to complete equal angles in equal times? Or, is it the fictitious representation of the physical effect of the two motive powers of rotation and orbiting of the planet?** (p. 134 – 135.) Is Kepler saying that it is necessary to replace the "fictitious" geometrical function of the equant by the "reality" of the motive powers?" Is that what Kepler meant when he said, "{***Therefore, the point of the equant C is nothing but a geometrical short cut for computing the equations from an hypothesis that is clearly physical***}?" (p. 135.)

Furthermore, what are those powers? Are they in the planet itself, in the Sun, or elsewhere? And, what about the fact that the axis of the earth is oriented and rotated in line with the apparent motion of the Celestial North Pole, and not with the sun? What is the power that determines that third motion called the precession of the equinoxes?

THE ARISTOTLE QUESTION

As for the question of Aristotle that Juan Alejandro raised, this is a very important question because, from the standpoint of history, the difference between Plato and Aristotle is a question, which admits of no compromise. The opposition between the two is irreconcilable because Plato represents the republican outlook for which every human being is considered a unique individual created in the image of God, and Aristotle represents the oligarchical outlook for which man is a creature of sense perception who can be manipulated, kept in ignorance, and treated like cattle. The fundamental difference between Plato and Aristotle is the difference between man and animal. As history shows, human societies has been constantly divided between those two outlooks, and periods of war and of dark ages were always followed by a Platonic renaissance based on the principle of justice and love of mankind, {***agape***}. The Carolingian Renaissance, the Italian Renaissance, the Peace of Westphalia, the Colbertian Economic Renaissance, the American Revolution, the Revolution of Benito Juarez in Mexico, all were examples of Platonic renaissances.

Those two same irreconcilable principles were also found in Chinese society, and are expressed by the social and philosophical differences between Confucius and Lao Tzu. In the West, these differences have always reflected the historical conflict between Plato and Aristotle. The chronology of that fight can be established as follows:

PLATONIC TRADITION	ARISTOTELIAN TRADITION
- Solon of Athens,	- Lycurgus of Sparta
- Thales,	- Oracle of Delphi,
- Pythagoras,	- Parmenides,
- Socrates,	- Zenon,
- Plato,	- Aristotle,

- Cusa,
- Leonardo,
- Kepler,
- Leibniz,
- Pascal,
- Monge,
- Carnot,
- Schiller,
- Humboldt brothers,
- Gauss,
- Benjamin Franklin,
- Riemann,
- LaRouche.
- Zorzi,
- Paolo Sarpi,
- Descartes,
- Newton,
- Euler,
- Locke,
- Hume,
- Laplace,
- Cauchy
- Auguste Comte,
- Kant,
- Hegel,
- Bertrand Russell.

So, this is the philosophical division between the Platonic and the Aristotelian factions throughout history, and which is also reflected in the Catholic Church by the difference between the school of Saint Agustin and the school of Saint Thomas Aquinas.

When I was a student of about your age, I discovered that the notion of truth in Aristotle was exclusively based on sense perception, I knew something was wrong, but I did not realize what the significance was until I met up with Lyndon LaRouche twenty years later. To this day, I still remember the original Greek statement by which Aristotle reduced the human mind to things, when he wrote: {***Patemata tes psyches ton pragmaton omoyemata***} (the products of the soul are of the same nature as things). This became the basis for the "pragmatist" philosophy of especially the Venetians and later, the British-Dutch East India Company. This idea was based on Aristotle's false assumption that {***there cannot exist anything in the mind that has not been processed first through the senses***}.

In 1963, when I wrote my thesis for a Master's degree in Philosophy, at the Vatican University of Saint Paul, {***Sedes Sapientiae***}, in Ottawa, I was obliged to argue in favor of the notion of truth according to Aristotle, and not according to Plato, because I was not allowed to debate the position of Plato in a faculty which was dominated by Thomas Aquinas who had, as the O.M.I. teachers put it, "christianized" Aristotle. "Sorry, but the idea of "truth" in accordance with Plato and St.Augustine is not on the program," they said. Twenty years later, after I had become a professor at the University of Montreal, I was told the same thing by faculty officials: "Sorry, but the idea of "Truth" in accordance with LaRouche is not on the program."

Today, you will find that the battle that the LYM is waging presently on American University campuses is precisely this same fight. The Campus Gestapo that the latest EIR of October 13, 2006, covers, is precisely a modern version of the fight that went on inside of Plato's Academy in ancient Greece, more than 2,000 years ago. Yes, Aristotle was the Goebbels of Athens who had been deployed from the Oracle of Delphi to destroy the Platonic Academy. Aristotle was later to assassinate by poisoning the father of Alexander the Great, Phillip of Macedonia in order to avoid the expansion of the Platonic Academy in

Persia. Although the history books lie about Aristotle being the teacher of Alexander, it is clear that Alexander the Great was a follower of Plato. And it was not an accident that after the destruction of Plato's Academy at Athens, it was reconstructed in Alexandria, Egypt.

Now, this has direct implications for astronomy. Aristotle had no problem with being absolutely convinced that the Sun truly rises in the East and sets in the West. For him this was an absolute truth, and not a visual illusion at all, because he was convinced that the earth was flat and that the Sun was truly orbiting around the Earth. The Platonists, on the other hand, were saying that believing in sense perceptions is believing in taking shadows for realities. Pythagoras and Plato both said that it was the Earth that was orbiting around the Sun, but that the only way to know that was through anomalies and paradoxes that celestial bodies provoked in the domain of your sense perception.

The crucial shadow that the Pythagoreans were discussing was precisely the {***retrogression of Mars***} which could only become truthful when the idea of the Sun's opposition was taken into account. So, you see, that the animation that the LYM have constructed with Kepler's {***New Astronomy***} is a perfect refutation of Aristotle!! For Plato, truth was to be discovered beyond sense perception in the higher domain of universal principles. This is the reason why, in astronomy, geometry had to be replaced by principles. The truth is not what you see, but what you know through the failure of what you see. Physical things are merely shadows of higher realities that produced them. Things are merely the end products of a creative process, their resulting effects, not the causes of what you know, as Aristotle believed.

So you see, this has a lot of implications, because if the products of the human mind are merely the results of sense perceptions of physical things, then creativity becomes impossible, because the only thing that the mind can do is to imitate more or less perfectly, the behavior of things that are already created. That is called "Soap Opera." Don't forget that sense perception is the basis for public opinion, and public opinion is the basis for Soap Opera. This is the reason why Plato banned the use of imitation {***mimesis***} in his {***Republic***}, because imitation is the art of manipulating public opinion. This is also the reason why Plato was accused of being a "fascist" by synarchists such as Leo Strauss, because he was banning those poets who brainwashed the youth as today's television does.

On the other hand, as you well know, Platonic truth is going out in the streets fighting against public opinion, organizing people to break their chains and help them free themselves from their self-inflicted enslavement of going along to get along. Our task is to get people out of Plato's Cave and turned them to the light of reason. Aristotle's task is to keep people chained to the shadows of their sense perceptions. Which task would you rather undertake?

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