

## Appendix 35 The Tychos – Our Geoaxial Binary System

29 October 2019, 11:39 pm<sup>1</sup>

### Kepler’s elliptic illusion and why his *ad hoc* “mathemagic equant” needs to go

I think it is now time for me to share with you my latest, more deep-seated realizations regarding Johannes Kepler’s proposed “laws of planetary motion”. In short, Kepler is the man responsible for having implanted in our minds that our planets travel around elliptical orbits while also periodically accelerating and decelerating as they approach or recede from the Sun. We shall now see how these spurious notions can be thoroughly deconstructed and shown to have been, in all probability, mere figments of Kepler’s fervid imagination, ardent ambition and blinding confirmation bias.

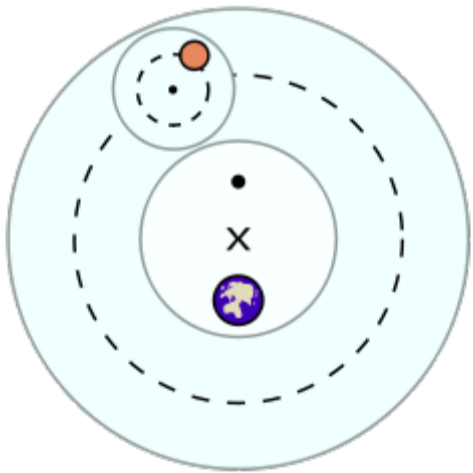
I will not dwell here on the fact that Kepler was ultimately exposed as a science fraudster, as revealed in 1988 by William H. Donahue,<sup>2</sup> the highly qualified translator of Kepler’s famous “Astronomia Nova”, a book still regarded as the “Bible of the Copernican Revolution”. However, the fact that Donahue’s findings never caused any sort of reaction among our world’s scientific community is quite telling: it goes to show the extent to which the sacrosanct “established scientific truths” proclaimed a few centuries ago by a handful of privileged scholars elevated to god-like status enjoy a aura of “untouchability”. To be sure, no single existing religious group can even dream of attaining the sort of mass consensus boasted by the almost universally accepted Copernican/Keplerian heliocentric creed, with its billions of converts spread all over the planet.

But let us return to the topic of this Appendix: Kepler’s elliptical orbits. Flavia Marcacci, an Italian astronomy historian (whom I hope to meet in person very soon), is the author of “Cieli in Contraddizione”<sup>3</sup> (“Skies in Contradiction”), a book I promptly ordered as it was released in 2018. Her thorough and rigorously researched treatises focus on the monumental work of Giovanni Battista Riccioli and his “Almagestum Novum”. Here is an extract from an earlier academic paper of hers:

*“Many astronomers, such as Galileo, did not like the elliptical orbits of Kepler, that seemed an artful reworking of the Ptolemaic punti aequantes. All these problems have to be inserted in an astronomical context where the alternative was not strictly between the Ptolemaic and the Copernican systems. The alternative was between the Copernican solution and the Tychonic one, and we would make a mistake if we forget this. Therefore, their first attempts were to try to explain these questions in the context of the astrometrical techniques: Riccioli’s solution is one of these and he succeeds in embedding these items in his system.”<sup>4</sup>*

That’s right: even the “iconic” Galileo Galilei disliked the elliptical orbits proposed by Kepler, and with good reason: Galileo quickly realized that what Kepler had done was no more than a “mathemagical sleight of hand” which, as it were, amounted to nothing but a clever algebraic formulation of the dreaded and much-ridiculed equant proposed by Ptolemy. Before proceeding, I want to clarify to the reader what Ptolemy’s equant was all about. Based on a Wikipedia article, the “equant issue” may be summarized thus:

*“Equant (or punctum aequans) is a mathematical concept developed by Claudius Ptolemy in the 2nd century AD to account for the observed motion of the planets. The equant is used to explain the observed speed change in planetary orbit during different stages of the orbit. This planetary concept allowed Ptolemy to keep the theory of uniform circular motion alive by stating that the path of heavenly bodies was uniform around one point and circular around another point.”<sup>5</sup>*



*The equant model has a body in motion on a circular path that does not share a center with Earth. The moving object’s speed will actually vary during its orbit around the outer circle (dashed line), faster in the bottom half and slower in the top half. The motion is considered uniform only because the planet sweeps around equal angles in equal times from the equant point. The speed of the object is non-uniform when viewed from any other point within the orbit.”<sup>5</sup>*

In simpler words, the equant was Ptolemy’s geometric attempt to account for our planets’ apparent accelerations and decelerations, whereas Kepler’s attempt was the algebraic equivalent of the same. Kepler’s theory was (and remains) in stark contradiction to the Newtonian “laws” which stipulate that the gravitational constant “G” is ... a constant! Since the speed of a free-falling body will remain constant, there is no explanation whatsoever for why our planets would be alternately accelerating and decelerating, nor why they would have elliptical orbits.

In the Tychos model—let this be clear—Ptolemy’s equant and Kepler’s ellipticity are accounted for, quite simply, by Earth’s 1.6 km/h motion around its PVP orbit. The Tychos explains the observed, yet illusory, accelerations and decelerations of our surrounding celestial bodies both qualitatively and quantitatively.

<sup>1</sup> <https://cluesforum.info/viewtopic.php?p=2412898#p2412898>

<sup>2</sup> <http://articles.adsabs.harvard.edu/full/1988JHA....19..217D/0000217.000.html>

<sup>3</sup> <https://www.ibs.it/cieli-in-contraddizione-giovanni-battista-libro-flavia-marcacci/e/9788885803114>

<sup>4</sup> [https://www.researchgate.net/publication/276432049\\_The\\_World-System\\_of\\_Giovanni\\_Battista\\_Riccioli\\_and\\_the\\_Phases\\_of\\_Venus\\_and\\_Mercury](https://www.researchgate.net/publication/276432049_The_World-System_of_Giovanni_Battista_Riccioli_and_the_Phases_of_Venus_and_Mercury)

<sup>5</sup> <https://en.wikipedia.org/wiki/Equant>

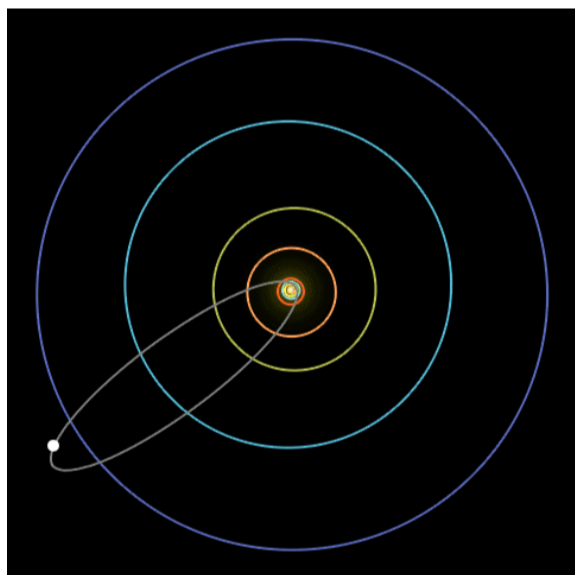
And yes, we do observe our planets speeding up and slowing down over the course of their respective orbits. The reason for this, however, is a plain “space-time” illusion that we can readily understand without the need for any sort of intricate Ptolemaic geometry or Keplerian “mathemagics”.

Under the Tycho's model, Ptolemy's intricate equant theory and Kepler's “elliptic orbits” theory are both elucidated via a much simpler explanation: an earthly observer moving “in a straight line” at 1.6 km/h (totaling 14,036 km per year) will perceive the motions of our planets as if accelerating and decelerating. In other words, the planets will appear to speed up and slow down, depending on where they find themselves: whether in the “top half” or the “bottom half” of their 360° revolutions around the slow-moving Earth.

One basic reason our planets appear to accelerate and decelerate as they revolve around us in eccentric orbits can be illustrated as follows:



Yet, in spite of this quite obvious perspective effect, on Wikipedia and all sorts of “scientific” websites you will find ludicrously animated gifs (see below) meant to depict the orbital motion of Halley's comet. I think even a child can see how silly it is: the comet appears to briskly accelerate as it transits close to Earth and to slow down as it recedes from us. This 2D animation has obviously no relation to reality. It is nothing but a 2D animation which cannot possibly represent the true constant orbital speed of Halley's comet; it only simulates the perceived, yet illusory, accelerations and decelerations of the comet as seen from Earth:



### Eccentricity vs. ellipticity

It is absolutely essential not to confuse eccentricity with ellipticity. Eccentricity is the off-center displacement of a planetary orbit in relation to the Sun. Yes, all of our solar system's planets have eccentric/off-centered orbits. Even Kepler accepted this undeniable fact. As does the Tycho's model. However, the Tycho's model needs no elliptical orbits, nor does it require planets to accelerate and decelerate in order to model observed reality, as demonstrated by the Tycho'sium 3D solar system simulator.<sup>6</sup>

Ellipticity, on the other hand, is just the proposed Keplerian “explanation” for the very small—yet for centuries vigorously debated—observed periodic inequalities (accelerations/decelerations) of our planets' secular motions. The Tycho's model accounts for the alleged ellipticity of the planetary orbits, along with the illusory accelerations and decelerations of our planets, in the simplest imaginable manner: Earth moves very slowly (1.6 km/h) along its PVP orbit, and has thus been moving virtually “in a straight line” since the time of Ptolemy. All our solar system's family members revolving around us at high speeds will therefore appear to move slightly faster or slightly slower, depending on which “side” of Earth they find themselves. At times they will be moving in the same direction as Earth's “straight line” motion, and at times in the opposite direction of Earth's “straight line” motion. These fluctuating, yet illusory, observed orbital speeds will cause an earthly observer to conclude that planets move in elliptical orbits. I know, this may seem to be a breathtakingly simple demolition of Kepler's “elliptical” laws of planetary motion, but so be it.

A funny aspect of this eccentricity/ellipticity question is that the pundits at NASA included no ellipticity data on their very own official “Planetary Fact Sheets”.<sup>7</sup> Instead, they use the completely different term “eccentricity” to define our planets' orbital offsets in relation to the Sun. If Kepler were

<sup>6</sup> <https://tychos.space/ts>

<sup>7</sup> For example: <https://nssdc.gsfc.nasa.gov/planetary/factsheet/marsfact.html>

still alive, he would immediately call NASA’s supposedly highly qualified editors and tell them to correct the terminology used in their Planetary Fact Sheets. In any case, the fact that NASA would confuse “eccentricity” with “ellipticity” is just another tidbit of supportive confirmation that NASA is not, and has never been, a reliable source of scientific knowledge. Hopefully, more and more earnest and intelligent people will eventually figure out what NASA is all about.

As for Kepler’s idea that the orbital trajectories of our Solar System’s planets are elliptical, all the available historical astronomy literature on this subject will tell you that he reached his conclusions solely on the basis of his obsessive, half-decade-long study of Mars’ motions, the data for which he obtained from his master, Tycho Brahe. It was Mars—and Mars only—that caused Kepler to theorize about elliptical orbits. Here is just one testimony of this fact:<sup>8</sup>

Once the main source of error had been removed by Tycho Brahe’s accurate recording of the entire cycles of planetary motion, **the most outstanding divergence between theory and observation was in the case of Mars.** It is especially important to note that Brahe improved the accuracy of parameters and observations at the same time, so as to obtain, for the first time in history, a clear discrepancy between the place of a planet and that predicted by “circular” theories. In the past such happenings had been swamped by all the other errors and uncertainties. Using Brahe’s results, Kepler could prove in this one case **(but in no other)** that circular theory must break down. This is exactly the reason why Kepler ellipses could not be suggested before the work of Brahe, and indeed why Kepler **had to develop his theories on the basis of the study of Mars.**

It thus appears that after two thousand years of observation with the

[Contra-Copernicus: A Critical Re-estimation of the Mathematical Planetary Theory of Ptolemy, Copernicus, and Kepler](#) *Derek J. de S. Price*

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In hindsight, we can now clearly see how Kepler went about his “scientific” endeavors. Since he couldn’t make any sense of Tycho Brahe’s precise and rigorous observations of the motions of Mars (as plainly demonstrated and enacted in the Tychosium simulator), Kepler simply decided—out of thin air or perhaps sheer ambition—to stipulate what follows:

1. *The planets do not revolve around uniform circles; they revolve around elliptical orbits.*
2. *The planets do not move at constant speeds; they accelerate and decelerate depending on their distance from the Sun.*

As far as I can see, Kepler’s “laws” belong to the most egregious cases of *ad hoc* solutions<sup>9</sup> ever concocted in the history of science. No wonder Galileo and many other astronomers of his time disliked Kepler’s “elliptical” theories. It remains a mystery why Kepler, who notoriously adulterated and sabotaged the work of his master Tycho Brahe, ultimately became one of the most acclaimed “gods of astronomy”.

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<sup>8</sup> <https://books.google.it/books?id=WboPReSZ668C&lpg=PA197&ots=Qf-PAYSCV&dq=Contra-Copernicus%20Critical%20Problems%20in%20the%20History%20of%20Science&hl=it&pg=PA197#v=onepage&q=Contra-Copernicus%20Critical%20Problems%20in%20the%20History%20of%20Science&f=false>

<sup>9</sup> In science and philosophy, *ad hoc* means the addition of extraneous hypotheses to a theory to save it from being falsified. *Ad hoc* hypotheses compensate for anomalies not anticipated by the theory in its unmodified form. For more details, see [https://en.wikipedia.org/wiki/Ad\\_hoc](https://en.wikipedia.org/wiki/Ad_hoc).