

# Galileo's Belated Rehabilitation?

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At the meeting of the Pontifical Academy of Science last November 10, celebrating Einstein's centenary, Pope John Paul II expressed a wish for a review of Galileo's historical condemnation. Following the guidance of the II Vatican Council, the Holy Father requested, the assembled scientists, hierarchs and theologians, "in the spirit of collaboration and fair consideration of injustice, disregarding whichever side is wrong..." to rehabilitate Galileo in view of finding fruitful light on science and faith which belong together. We cannot hide the fact that Galileo and Einstein are symbols of an era and we must be aware that Galileo's trial was brought about by his open support of the Copernican sun-centered world view."

This recalled my participation at the solemn quatercentenary celebration of Galileo's birth, in 1964, in Florence and his native Pisa. Under the auspices of leading Italian authorities, in the sumptuous hall "Del Dugento of the historical Palazzo Vecchio, musicians proclaimed the opening of the International Symposium at the gathering of delegates from the entire cultural world to honor the pioneer of classical physics. In this, Isaac Newton, born in 1642, the year Galileo passed away, merged into the concept of the Galilean-Newtonian first scientific revolution which since the Renaissance is in the foundation of an incomparable rise of physical science of the 19th century.

In many eulogies and learned essays at this Symposium, Galileo was evidently well established in the galaxy of immortal nestors of the science of a new age. No single comment suggested any need for rehabilitation from heresy. His gorgeous sepulchre next to Michelangelo's in the Santa Croce church in Florence testifies to full recognition while Leonardo

da Vinci's grave is lost somewhere in French exile, Galileo's "Dialogue" published in 1632, which one year later brought his dramatic conflict with Church authorities, was described at the Symposium as a general pioneering treatise on the relativity of physical motion. In this famous volume Galileo at a dangerous time quite un diplomatically defended the Copernican idea when its publication was already on the Index since 1616. After the monk, Giordano Bruno, was burned on the stake in 1600, it was precarious to rock the boat of the powerful Inquisition. It was only the great popularity of Galileo's experiments and his telescopic discoveries that previously secured for him the friendship and hospitality of Pope Urban VIII and the Grand Duke of Tuscany. Thus, at his age of 69 years, Galileo was condemned for the rest of his life to house arrest and prohibition of any further publication.

At present, in the historical-graphical image, Galileo is considered as a very conservative theologian. He merely intended to improve the mathematically complex Ptolemaic earth-centered world view as did the Catholic Canon of Frombork cathedral, Nicolaus Copernicus. Actually the latter humbly dedicated his famous volume "On the Motion of Celestial Orbs" in 1543 to Pope Paul III which the Holy Father appreciatingly accepted. Nothing dangerous was found in this exposition. Copernicus remained faithfully dedicated to Aristotelian scholasticism, a safe philosophy in the medieval coming mentality. Actually Galileo introduced a non-Aristotelian novelty — the experiment — which secured for him an explosive popularity first in Pisa and then at the liberal Padua University. He advised his students to abandon the dusty tomes of Aristotle and see what mother nature tells us, as he showed a one hundred pound ball reaching the ground

at the same instant as a one pound ball, thus proving that Aristotle, the speculative philosopher, was wrong. But it is moving that was the principal accuser against Galileo, and this Galileo did not prove. When we examine the documents of the entire 1633 trial now available in the XIX vol. of the *Edizione Nazionale*, we find that Galileo was condemned for what he did not do.

Now physicist, philosophers and historians in the present rise of the second scientific revolution maintain that Galileo committed a far more serious transgression of which the inquisitorial prelates or Galileo himself were not aware. With his empirical rationalism Galileo replaced the Christian spiritual universe concerned in man's existence and salvation of the human soul and introduced a universe unconcerned in man's fate, a universe of matter in motion, a universe without God. Thus he gave an impulse for the return of the ancient notion of Democritus in which the universe consists of atoms and vacuum as daringly revived by Galileo's younger contemporary Pierre Gassendi. This view was sternly suppressed since the time of early Church fathers. When Galileo, followed by pious Newton, mechanized all cosmic events, they shaped the image of the universe as a machine of determinism, where everything is computable and knowable. Neither fore-saw that they paved the way for the meteoric rise of materialism, a natural breeding ground of the forthcoming marxism.

Some six decades after Newton, adhering to all consequential details of the first scientific revolution, the genial atheist of the French revolution, P. S. Laplace, in his volume published 1796, on a purely mathematical basis explained the "Origin of the World System." It produced an overwhelming influence on nineteenth century thinking. Since Galileo and Newton accepted as the only reality such measurable scientific facts, the Galilean primary qualities, weight, shape and motion, they were unaware they became forerunners of the present Marxist-Leninist dogmas, based on the only reality in sense-perceptible matter. Yet, a great mentor of Einstein, the physicist, Ernst Mach, never tired of reminding his students: "Senses do not lie but they do not tell us truth." Nevertheless, marxist dogmatists insist that in our universe everything is ultimately knowable. E. J. Dijksterhuis in his work on the history of science states:

"The mechanization of the universe led with irresistible consistency to the conception of God as a retired engineer and to his complete elimination as only a step."

Yes, when man denies God, he is bound to make himself a god. The late Christian philosopher, Jacques Maritain, frequently visiting professor at Princeton, maintains:

"Having given up God so as to be self-sufficient, man has lost track of his soul. He looks in vain for himself; he turns the universe upside down trying to find himself; he finds masks, and behind the masks, death."

Galileo's suggested rehabilitation thus contains dangerous pitfalls. Today, let us leave it as it stands. History cannot be changed. Indeed, he is the symbol of an era of the phenomenal rise in man's intellectual cleverness, due to applied Galilean science in technology, yet it lacked growth in morality. Pitirim Sorokin, who ended his life as an exile at Harvard, points out that in the last four centuries since the Renaissance man's science far outstripped his growth in goodness and morality. The fabulous promise of science as a servant of man was thwarted on the vast cemeteries of wars

and global conflicts. This fatal wound on the body of our civilization can only be healed in the forthcoming centuries by an undreamed of rebirth in the light of a redeeming universe. Chattanooga, Tenn. February 15, 1980 (Galileo Galilei, February 15, 1564) Karel HUIJER, Querry Professor Emeritus at the University of Tennessee in Chattanooga

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