

## Response to a Challenger of Geocentrism

**Challenger:** I agree that all the letters are good letters, but not because what they write is TRUE but because we can learn even from the stupidities some of them write.

For example, John Chrysostom Lux – don't be too impressed by him -- writes several howlers or simply very foolish remarks betraying his high level of ignorance – such . . .

**R. Sungenis:** Yes, various Fathers wrote some howlers. Even the great St. Augustine has a few whoppers in his bag of specious remarks. Then again, the Church never appealed to single Fathers as having any authority on any subject. The only time the Church says that she is bound by the Fathers is when they are in consensus on a given theological topic; otherwise, their single opinions are just that – opinions. It just so happens to be the case that geocentrism (a non-moving Earth) is perhaps the strongest consensus of the Fathers we have on record, rivaled only by baptismal regeneration and the inerrancy of Scripture.

**Challenger:** Even your charlatan friend Sungenis writes a letter, once again showing his mistaken understanding of the Michelson Morley experiment and what he calls Newton's gravitation.

**R. Sungenis:** I'll ignore the epithets ("charlatan"), for now at least, since I know your friend speaks from ignorance. He should know that in the ten years I've debated this topic I have engaged some of the best intellects in the fields of physics and astronomy. Not a one of them has been able to disprove geocentric cosmology, and all walk away rather frustrated that they cannot do so. In fact, they soon find that within a few minutes of debating with me, their physics supports geocentric cosmology.

As for my alleged "mistaken understanding of the Michelson Morley experiment," accusations, of course, are easy to levy. Backing them up is another story altogether. If I had a thousand dollars for every opponent who comes in with all kinds of academic and intellectual bluster ready to knock down geocentric cosmology with one swoop yet later find that they are the odd men out and cannot produce even a single sustainable objection to geocentric cosmology, I'd be a rich man.

As for the interpretation of MMX, modern cosmology admitted almost a hundred years ago that a non-moving Earth was a viable interpretation of the experiment. It is not my idea. They simply decided not to accept that particular interpretation, but the decision wasn't made on scientific grounds; rather, it was made on philosophical grounds, namely, the Copernican Principle. To quote a paper I just read yesterday:

"The Copernican Principle says that you, as an observer, are not special. You don't live in a special time. You don't see things from a special position. The power behind the Copernican principle is that scientists try to never, ever, ever, forget its admonition as they attempt to explain the world." ("An Overdose of Copernicus: Our Universe Might Yet Be Special," <http://nautil.us/blog/an-overdose-of-copernicus-our-universe-might-yet-be-special>)

So let's see if "my interpretation of MMX" is off the charts, as the Challenger contends. To show him that it is not, I will quote from Einstein's biographer about the experiment:

“In the United States Albert Michelson and Edward Morley had performed an experiment which confronted scientists with an appalling choice. Designed to show the existence of the ether...it had yielded a null result, leaving science with the alternatives of tossing aside the key which had helped to explain the phenomena of electricity, magnetism, and light **or of deciding that the earth was not in fact moving at all.**” (*Einstein: The Life and Times*, p. 57).

You can see by the bolded words that one of the viable interpretations of MMX was that “the earth was not in fact moving at all.” Thus, it isn’t simply “my” interpretation. It was already suggested by the leading scientists of the day. Here’s another quote from the same book:

“The problem which now faced science was considerable. For there seemed to be only three alternatives. The first was that the Earth was standing still, which meant scuttling the whole Copernican theory and was unthinkable” (Ibid, pp. 109-110).

Again, we see that a non-moving Earth was certainly one possible solution to MMX, but modern academia simply could not accept it. It was “unthinkable.” I can certainly understand why. It would overturn almost everything modern science had striven for in the past 500 years. Every career, every book, every sheepskin, including the fame and fortune that went along with them, would have been put in jeopardy if a non-moving Earth was found to be the best solution to MMX.

But the fact is, they all knew a non-moving Earth was the simplest solution. Take for example the words of physicist G. J. Whitrow in the 1950s:

“It is both amusing and instructive to speculate on what might have happened if such an experiment could have been performed in the sixteenth or seventeenth centuries when men were debating the rival merits of the Copernican and Ptolemaic systems. The result would surely have been interpreted as conclusive evidence for the immobility of the Earth, and therefore as a triumphant vindication of the Ptolemaic system and irrefutable falsification of the Copernican hypothesis. The moral of this historical fantasy is that it is often dangerous to believe in the absolute verification or falsification of a scientific hypothesis. All judgments of this type are necessarily made in some historical context which may be drastically modified by the changing perspective of human knowledge” (G. J. Whitrow, *The Structure and Evolution of the Universe*, 1949, 1959, p. 79).

Other scientists also saw a motionless Earth as a possible solution to MMX, but were unwilling to accept it due to their philosophical presuppositions. Of his own MMX experiment, Albert Michelson said: “This conclusion directly contradicts the explanation...which presupposes that the Earth moves.” (“The Relative Motion of the Earth and the Luminiferous Ether,” *American Journal of Science*, Vol. 22, August 1881, p. 125). Arthur Eddington said the same about MMX: “There was just one alternative; the earth’s true velocity through space might happen to have been nil.” (*The Nature of the Physical World*, 1929, pp. 11, 8.). Historian Bernard Jaffe said: “The data were almost unbelievable... There was only one other possible conclusion to draw — that the Earth was at rest.” Jaffe’s philosophical barrier was then revealed when he concluded: “This, of course, was preposterous.” (Michelson and the Speed of Light, 1960, p. 76.).

So we see that interpreting MMX as showing a motionless Earth is not Bob Sungenis' interpretation. It is only the case that Bob Sungenis accepts the non-moving interpretation since (1) it makes the most scientific sense, and (2) it is the consensus of the Fathers and the medieval Church, and (3) it coincides with the Catholic traditional literal interpretation of Scripture passed down from them. I, unlike Einstein, have no need to shorten lengths of moving objects or increase their mass or dilate their time in order to answer MMX. I take the simplest solution – one that keeps lengths, mass and time the same and interprets the empirical evidence prima facie – a motionless Earth. Contrary to Jaffe, the simple solution is not “preposterous.” It is only preposterous to those who have been highly influenced by the Copernican Principle as the be-all and end-all of cosmological discussion.

As for MMX itself, the common interpretation by Special Relativity theorists is that the experiment yielded a “null” result. Yes, if you are looking for fringe shifts in the interferometer that coincide with an Earth moving around the sun at 30km/sec, I guess one would be predisposed to conclude that the results of MMX were “null.”

But the truth is, in the technical sense of the term, the results of MMX were anything but “null.” Null means zero, but MMX did not register a zero ether drift. It measured one-sixth to one-tenth of the 30km/sec that the Earth was supposedly moving around the sun. Here are Michelson's own words:

“Considering the motion of the Earth in its orbit only, this displacement should be  $2D v^2/V^2 = 2D \times 10^{-8}$ . The distance D was about eleven meters, or  $2 \times 10^7$  wavelengths of yellow light; hence, the displacement to be expected was 0.4 fringe. The actual displacement was certainly less than the twentieth part of this, and probably less than the fortieth part. But since the displacement is proportional to the square of the velocity, the relative velocity of the Earth and the ether is probably less than one-sixth the Earth's orbital velocity, and certainly less than one-fourth” (A. A. Michelson and E. W. Morley, “On the Relative Motion of the Earth and the Luminiferous Ether,” Art. xxxvi, *The American Journal of Science*, eds. James D and Edward S. Dana, No. 203, vol. xxxiv, November 1887, p. 341.)

So was the case for every interferometer experiment performed for the next 80 years until the 1960s – a small ether drift that was a fraction of 30km/sec. This was a conundrum for Einstein and his followers, since the Special Theory of Relativity, which was invented to answer MMX, claimed that there was NO ether at all in space – none, nada, zilch, zero. In fact, Einstein said that if there was any ether in space, then his theory is nullified. He said, “If Michelson-Morley is wrong, then Relativity is wrong.” (Einstein: *The Life and Times*, p. 107.). So Einstein simply dismissed the fractional ether drift of MMX as a mere artifact. But the sad fact is, scientifically speaking, artifacts would not have appeared in all the dozens of interferometer experiments performed over the next 80 years. “Artifacts” are posited only because modern interpreters are bound to the Copernican Principle, by their own admission.

Interestingly enough, Michelson performed another interferometer experiment with Gale in 1925 (MGX), but this one was designed to measure the rotation of the Earth, not a revolution around the sun. Lo and behold, Michelson found an ether drift that was near 100% of a 24 hour rotation period. So, whereas MMX measured 0.1% of a 365-day revolution around the sun, MGX measured a 99% of a 24-hour rotation, simply by using the measured ether drift. This presents quite a problem for the heliocentric camp, for the interferometers measure a rotation but not a revolution. But heliocentrism must have both, otherwise it is falsified.

Conversely, geocentrism needs only one, the rotation, since if the star field is rotating around a fixed Earth we would expect to see a near 100% ether drift against the Earth, which is precisely what the 1925 MGX showed. But since there is no revolution of the Earth in the geocentric system, this answers why the 1887 MMX did not produce anywhere near a 30km/sec ether drift. The facts speak for themselves. On a purely scientific basis, there is absolutely no reason why a motionless Earth cannot be used to explain both MMX and MGX.

**Challenger:**  $P=MV$  momentum = mass X velocity. By basic differential Calculus, taking the derivative of both sides (the chain rule developed by the great Catholic mathematician Augustin Cauchy) one gets  $dp/dt = F = \text{force} = dm/dt \ v + m \ dv/dt$

But  $dv/dt = A = \text{acceleration}$

And  $dm/dt = \text{change of mass with respect to time}$  (which for large bodies it is essentially zero)... Just look at the big rock in front of your house.... After x number of hours/days/years, the mass of the rock is basically the same as now.

Therefore  $F = MA$ . But  $dm/dt$  could be a very small number and if  $V$  is very large  $dm/dt \ v$  could be a very large quantity contributing very much to the total Force (gravitation).

What I am saying is that the famous equations for gravitation (whether Newtonian or not) are the result of some very basic calculus, not some ideology by Newton or Einstein – and Sungennis is full of shit most of the time he opens his mouth or writes.

**R. Sungenis:** Once again, I'll ignore the epithets (e.g., "full of shit") since I know your friend is speaking from ignorance. All I can tell you is, I've had numerous scientists come in like gangbusters shouting that I'm "full of shit," and then I watch each of them leave feeling like they are "full of shit" because they can't defend their position, scientifically.

As for Newton's gravitational equations, I have neither rejected them nor stated that they came from some "ideology." In our local environment, at least on large scales, Newton's laws seem to work well. The problem comes in when those same laws are extrapolated to the rest of the universe (e.g., the anomalous rotation curves of spiral galaxies; the lack of matter for the Big Bang expansion) or the atomic or subatomic world (e.g., lack of gravitational explanation for the atomic nucleus).

In fact, on large scales, per Newton's  $F = ma$  and  $F = Gmm/r^2$ , I use Newton's laws for the "center of mass" to show that in a rotating universe there is a center of mass and that the Earth can occupy it and remain motionless.

But since Newton's laws are local, it would take Mach's perspective to show that Newton's Absolute Space must be modified and defined, and the only way to define it is to fill it with the gravity of the universe, and thus it becomes Absolute Gravity since gravity permeates the universe. As such, Mach posited, and Einstein and the Relativists agreed (e.g., Thirring; Barbour and Bertotti, et al), that a rotating Earth in a fixed universe is the same dynamically as a rotating universe around a fixed Earth. Viola, geocentrism is vindicated once again. As Max Born put it:

“...Thus we may return to Ptolemy’s point of view of a ‘motionless Earth.’ This would mean that we use a system of reference rigidly fixed to the Earth in which all stars are performing a rotational motion with the same angular velocity around the Earth’s axis...one has to show that the transformed metric can be regarded as produced according to Einstein’s field equations, by distant rotating masses. This has been done by Thirring. He calculated a field due to a rotating, hollow, thick-walled sphere and proved that inside the cavity it behaved as though there were centrifugal and other inertial forces usually attributed to absolute space. Thus from Einstein’s point of view, Ptolemy and Copernicus are equally right. What point of view is chosen is a matter of expediency.” (Max Born, Einstein’s Theory of Relativity, 1962, 1965, pp. 344-345.)

**Challenger:** However, I am not interested in saying what is in my mind and heart to anybody, just friends like you. People like Sungenis already have made up their minds – never mind logic or an argument from me.

**R. Sungenis:** If the Challenger can show where my above arguments are illogical or that he has sufficiently argued his case that makes it irrefutable, I will certainly succumb. The fact is, however, that neither this Challenger nor anyone else has shown that the above arguments are either unscientific or illogical. Unfortunately, it is THEY who have “made up their minds” to abide by the Copernican Principle, come hell or high water.

**Challenger:** On the other hand, Sungenis is a Protestant still – the sad part is that he does not even know it (or does not care after he has been told).

**R. Sungenis:** Quite the contrary. It is me who teaches and defends the consensus of the Church Fathers which the Council of Trent stated we are bound to obey under anathema. It is me who is abiding by the literal interpretation of Scripture that the Catholic Church has taught ever since it took the words “This is my body” to mean the literal presence of Christ in the Eucharist, while the rest of the world was turning it into a symbol. It is me who is abiding by the papal decrees against heliocentrism (Paul V and Urban VIII), and abiding by the 1566 Tridentine catechism which teaches geocentrism, not heliocentrism. It is only Protestants and liberal Catholics who rail against such things and think they know better than the Tradition and decrees that went before them.

**Challenger:** As a Protestant he interpreted Scripture as he pleased even if it was in contradiction to the Catholic Church. As a Catholic (in name) he pretends to interpret Sacred Tradition – including what and what is not part of the Catholic tradition from the Fathers of the Church.

**R. Sungenis:** I learned a long time ago in psychology class about the defense mechanism called “projection.” It is when we accuse someone of the very thing we are guilty of. This is precisely the problem of the Challenger. It is a fact that the Church Fathers held geocentrism in absolute consensus without the slightest deviation. It is a fact that the Church, through Robert Bellarmine who was commissioned by Paul V, stated that a consensus of the Fathers on a given topic requires us to adhere to that teaching and that geocentrism was just such a consensus. The problem, obviously, is that the Challenger doesn’t want to accept the consensus of the Fathers or what the 17<sup>th</sup> century Church under Paul V said about that consensus in regards to geocentrism. Instead, the Challenger wants to make it appear as if I have some novel interpretation of Tradition when in actuality it is he who has the novel interpretation.

**Challenger:** And I say Catholic in name because he is not afraid to interpret Tradition even at the expense of contradicting the Church.

**R. Sungenis:** Again, quite the contrary. The Tradition is clear. It taught geocentrism. So how could I be “contradicting the Church” by saying that it taught and decreed geocentrism? The problem is that the Challenger is equating the opinions of modern high churchmen today who support heliocentrism as if it were official Church doctrine. It isn’t, not by any stretch. The last official teaching of the Church on geocentrism is from 1633 under Pope Urban VIII in which he approved the Holy Offices condemnation of heliocentrism as a formal heresy. He then sent letters to all the papal nuncios and universities of Europe telling them so. The modern Church (e.g., John Paul II) neither overturned the decree of Urban VIII nor gave us any definitive teaching on cosmology. In effect, there is nothing to “contradict” since no official teaching has been made by today’s Church.

**Challenger:** Yes....Galileo was wrong – I have found several mathematical mistakes in his writings. For example, even though he was a genial man, the guy did not know the quadratic nature of motion. This is something that a good Calculus college student learns in his first university course.

**R. Sungenis:** We aren’t talking here about Galileo’s lack of calculus. We are talking about whether the sun and stars go around the Earth or the latter rotates under them. Galileo believed the latter (that is, at least up until 1639-1641 when he had a dramatic conversion to the faith and accepted geocentrism as the correct cosmology).

**Challenger:** But that does not prove what Sungenis keeps insisting on .... at the expense of making the Catholic Church look worse than it is – from the intellectual point of view.

**R. Sungenis:** So here we see what the real problem is. The Challenger is worried that in adopting the geocentric Tradition of the Church, I am embarrassing modern day churchmen who have decided to accept the teaching of the reigning powers of academia. Unfortunately, the Challenger cannot see the forest for the trees. When we show by the very laws of Newton, Mach and Einstein that modern science not only supports a geocentric universe but that these very icons of science actually state so in their books, then, from an “intellectual point of view” we have shown the world that our siding with geocentrism isn’t just some medieval cookery but is actually verified by the best tools modern science can give us. With that as our battle cry, the Catholic Church will look much better. In fact, if the world recognizes that the Catholic Church’s condemnation of heliocentrism was, in fact, guided by the Holy Spirit and that modern science supports that decision, then the world will all the more fall at the knees of the Church and praise and respect her for being the carrier of divine revelation that she is. The world will change in the instant it can be confirmed that the Church was right and Galileo was wrong.

R. Sungenis, 2013