

## Letters to the Editor of *Culture Wars*

### Subject: Geocentrism

January 2012 – June 2012

**Dr. Lawrence J. Dickson:** Dear Dr Jones: The two articles that dominated the January 2012 *Culture Wars* are both attacks on the Faith via “contrapositive self-destruction.” If one, for example, purports to “prove” that justice and goodness contradict the law of gravity, the end result (to everyone who realizes that gravity exists) is to debunk justice and goodness. This is like a geocentrist shaming himself and the Faith in front of a hall full of Estonian students. Luckily, the “proofs” both of Dr. Sungenis and of yourself are themselves logically weak.

Dr. Sungenis builds his tower of cards on the CMB anisotropy data, getting a nineteen-significant-figure result (“our ecliptic [is] 0.00000000000000017% of the size of the universe”) out of three-significant-figure data (see, e.g., page 11 of Copi, Huterer, Schwarz and Starkman “On the large-scale anomalies of the microwave sky” <http://arxiv.org/pdf/astro-ph.0508047.pdf>). And there is already at least one alternative explanation (Vale, “Local pancake defeats axis of evil” <http://arxiv.org/pdf/astro-ph/0509039v2.pdf>). Humility is certainly called for, as Dr. Sungenis says, but it is a humility of being led by the facts, not “cherry-picking” them to point to a predetermined conclusion.

Going on to Dr. Jones’ effort, it is a long non sequitur. Even if Newton was a bad-guy Whig, this does not invalidate his math. Dr. Jones admits, “the math makes sense, but... the Newtonian system remains fundamentally unfathomable because neither Newton nor his epigoni could explain either what gravity was or how it worked.” So what? That’s obviously an infinite regress. All we need is that it works.

If Berlusconi or the Whig regime claims to explain why or how it works, it’s their funeral. I’d say God likes mathematical physics (or mathematical mechanics, to use the philosophically more correct term). A physical law is yet another instance of God’s refusal to deceive. If you can land a probe on Titan using this math, then the scientist’s job is done. Analogies to politics, economics, love or strife are not relevant (though they may be vital to our souls). The fact that Newton himself abused his science to promote philosophical garbage does not invalidate my point.

I myself am very dissatisfied with dark matter, dark energy, the Higgs boson, and all the other epicycle-like contraptions of current physics.

Somebody is missing a very simple insight, like Newton's, Planck's, or Einstein's. When they find it, much of the complexity will disappear. Meanwhile, let Dr Sungenis suggest to NASA that they try the Michelson-Morley experiment on the space station or the moon. If geocentrism is right, it will fail everywhere but on Earth. Don't hold your breath.

Sincerely, Lawrence J. Dickson

**R. Sungenis:** Dear Editor: Well, let me see if I can sift through the sardonic repartee of Mr. Dickson and just address the facts. First of all, neither Dr. Jones nor myself are "attacking the Faith." We are trying to restore the Catholic's faith in the Magisterium, Tradition and Sacred Scripture and point out the unproven boasts of modern science in the same process. In the alternative, we want Catholics to recognize that much of science actually refutes the present theories of Big Bangism and evolution, not supports them. As for "contrapositive self-destruction," I don't know what that pedantic phrase refers to, so I'll ignore it, except to say that no one is going to prove that justice and goodness contradict the law of gravity, thank God. Rather, both justice and goodness will require us to tell science to stop forcing its grandiose theories about the universe down our collective throats when they can't even tell us how an apple falls to the ground. If one must insert phantom Dark Matter to make gravity obey one's theory, then all you have is hocus pocus and/or metaphysics, not empirical science. As for Mr. Dickson's assertion that the argument I draw from the CMB data is "logically weak" simply because I take Copi's ecliptic and show its relative size compared to the size of the CMB, this only shows Mr. Dickson ineptitude to understand the gravity of the issue, pun unintended. Logically, if Copi says that the 93 billion light-year diameter CMB points like bicycle spokes to our tiny, tiny ecliptic, then it behooves us to see how small our ecliptic is compared to the CMB, don't ya think? It shows us how unfathomably special and centrally located we are in the universe like nothing else can. Unfortunately, sometimes atheistic scientists are more honest than Catholics when it comes to interpreting the cosmic data.

As for Mr. Dickson's reference to Vale's paper as the basis for saying that I'm "cherry-picking," I suggest he first read Vale's paper instead of just quoting the title, and I also suggest he do a little more research. Vale himself says that his alternative to the CMB axis is "a novel explanation." I should say so, since no one in mainstream science has backed him up after he wrote the 2008 monograph. In fact, Copi, et al, refuted Vale's "pancake contamination" novelty in the 2010 paper ("Large-angle anomalies in the CMB" at

<http://arxiv.org/pdf/1004.5602v2.pdf>). Vale had no response. Copi showed that Vale's contamination theory would not produce the CMB ecliptic axis we actually observe in our telescopes but only a galactic axis we don't see. As such, perhaps the motivation Vale has for postulating such a "novel" shot in the dark answer like gravitational lensing (itself unproven) is the very reason the CMB has been dubbed "The Axis of Evil." They consider it "evil" for one reason – because it smacks of geocentrism and of conjuring up fears of having to be baptized in the Christian faith. If you are a dyed-in-the-wool Copernican, the CMB Axis is your worst nightmare. But if Copi, et al's interpretation of the CMB is true (and we have no credible refutation to the contrary), then, as I said in my CW essay, we have all the earmarkings that Pope Urban VIII, Moses, and the Psalms were correct when they said the earth was standing still in space.

At the least, Mr. Dickson should consider the fact that mainstream science, among some of its top representatives, is actually seeing geocentrism in the CMB when a few years ago such a notion was considered ridiculous. Instead, we see Mr. Dickson doing his own cherry-picking with Vale's article and dismissing the scientific alternatives with epithets such as "shaming himself and the Faith in front of a hall full of Estonian students." Some scientist. If, in the alternative, Mr. Dickson says he is "very dissatisfied with dark matter, dark energy, the Higgs boson, and all the other epicycle-like contraptions of current physics," and we find that geocentrism not only answers these anomalies but answers them very well (as I pointed out from physicist Timothy Clifton's paper in my CW article when he says we have no need for Dark Matter if we accept "void cosmology," namely, geocentrism), then why is Mr. Dickson so reticent to at least entertain this as a possible solution? Instead, Mr. Dickson does the same song and dance that the atheists drone to me when I show them this evidence, namely, "oh, we'll find what we need someday." Uh huh. As I have shown in my CW essay, all they have found is evidence to the contrary. Meanwhile, I thank St. Robert Bellarmine for quoting St. Augustine who said that unless science proves its case against the Bible, we accept the latter and dismiss the former. As for NASA, we've already told them to do the MMX in space, but they keep insisting they don't need to, because they already "know" the earth moves. Uh huh. That was the same reason Einstein gave for his haunted-house-of-mirrors interpretation of MMX, and his fanciful interpretations are precisely why science needs to invent Dark Matter, Dark Energy and the Higgs boson – because Einstein's theories don't work without these props. Do we see a vicious circle and a peculiar pattern here? This is precisely why Max Planck once said, "science advances funeral by funeral."

**Dr. Lawrence J. Dickson:** Dear Dr Jones: In response to Dr. Sungenis' letter (March 2012 CW) - and by the way I am Dr. Dickson (PhD in mathematics, Princeton, 1971) - here is a quote from Copi, et al, that he did NOT cherry-pick. "This [dipole] is nearly two orders of magnitude larger than the root-mean-square (rms) anisotropy in the dipole-subtracted sky, and so thought not to be of cosmological origin, but rather to be caused by the motion of the solar system with respect to the rest frame defined by the CMB. As shown by Peebles & Wilkinson (1968), the dipole induced by a velocity  $v$  is  $T(v/c) \cos \theta$ , where  $\theta$  is measured from the direction of motion. Given  $T = (2.725 \pm 0.002)$  K (Mather et al. 1999), one infers that  $v \approx 370$  km s<sup>-1</sup>. The solar motion also implies the presence of a kinematically induced Doppler quadrupole (DQ; Peebles & Wilkinson 1968; Kamionkowski & Knox 2003)." (Copi, Huterer, Schwarz, and Starkman, "On the large-angle anomalies of the microwave sky," section 2.4) 370 kilometers per second is much faster than rotational or orbital speed. If the "solar system" is in such rapid motion, so is the Earth. So much for geocentrism. Dr. Sungenis is hoist on his own petard. The "Axis of Evil" is a small anisotropy produced by a huge linear correction imposed on the data to get rid of these major terms so other effects can be visible. Major linear corrections are not quite accurate in a nonlinear world, and they therefore create artifacts of their own. Nobody except Dr. Sungenis considers the "Axis of Evil" to be evil. He seems to have missed a major trend toward whimsy in scientific naming, going back to "Big Bang" times: quarks, charm, etc. The "Axis of Evil" was a dig at President Bush's war propaganda. Dr. Sungenis shamed himself and all Catholics in front of a hall of Estonian students, many non-Catholics included, by denouncing Pope John Paul II's 1992 Galileo speech. According to Dr. Sungenis, Jesus was only kidding when he told Peter that what he loosed on Earth was loosed in Heaven (Mt 16:19). The rest of us Catholics know that Pope John Paul has loosed us from the anti-scientific interpretation of Renaissance popes' condemnation of Apollo-worship (heliocentrism). But the Estonian seekers were badly confused. Remember that Dr. Sungenis (at least in 2007) went to the absurd length of claiming ROTATIONAL geocentrism as well as translational. In other words, the Earth isn't turning, but all the stars are zipping in lockstep at thousands of times the speed of light. And when the lunar astronauts watch the Earth turning, they are deluded. In other words, God is cruel, and has given us senses and minds only to trip us up, so that we can be caught rejecting some obscure pronouncements of centuries ago, and sent to Hell. I'll never hold my peace against this stuff, which really endangers souls, even as I critique pseudo-science like evolution by using the tools of reason.

**R. Sungenis:** Dear Editor, I engage in no cherry-picking. But perhaps Dr. Dickson was a bit selective when he quoted above from Copi's 2005 paper but ignores his 2010 paper. The latter tells us that the issue is not whether one can produce dipoles in the CMB, but whether one can explain how dipoles, quadrupoles and octupoles, respectively, align with the Earth's ecliptic and equinoxes! This is why Copi says in the latter paper: "Particularly puzzling are the alignments with solar system features. CMB anisotropy should clearly not be correlated with our local habitat. While the observed correlations seem to hint that there is contamination by a foreground or perhaps by the scanning strategy of the telescope, closer inspection reveals that there is no obvious way to explain the observed correlations" (p. 6).

Hence, it doesn't make any difference if the solar system is moving at 370km/sec against a CMB at rest or the Earth is fixed and the CMB is moving at 370km/sec. Even though Copi reveals that he is heavily influenced by "the Copernican principle in which the Earth does not have a special place in the universe" (p. 1), he admits that the CMB dipole, quadrupole and octupole point to and are aligned with the sun/earth ecliptic and equinoxes in any model, to a 99% degree of certainty. That the whole universe is aligned with the Earth's ecliptic and equinoxes (an infinitesimally small region  $10^{-15}$ % of the size of the universe) is like saying the whole Milky Way galaxy is aligned with a mustard seed. So, all Dr. Dickson's emphasis from the 2005 paper about "root means squared" and "kinematically induced dipoles" is moot. We aren't talking about how one can make a dipole but only about the total polarity of the CMB that Copi himself admits he has "no obvious way to explain." But we Catholics have a way to explain it. It's called Genesis 1:1: "In the beginning...the earth was without form and void and darkness was upon the face of the deep." Notice that the earth came first, before the light and the stars, and was the pivot point around which everything else was placed. That's called "cosmic alignment" in modern terminology.

Copi is not alone in his conundrum. Lawrence Krauss, one of the top cosmologists today says these astounding words: "But when you look at CMB map, you also see that the structure that is observed, is in fact, in a weird way, correlated with the plane of the earth around the sun. Is this Copernicus coming back to haunt us? That's crazy. We're looking out at the whole universe. There's no way there should be a correlation of structure with our motion of the earth around the sun — the plane of the earth around the sun — the ecliptic. That would say we are truly the center of the universe....The new results are either telling us that all of science is wrong and we're the center of the universe, or maybe the data is simply incorrect, or maybe it's telling us there's something weird

about the microwave background results and that maybe, maybe there's something wrong with our theories on the larger scales." [L. Krauss, "The Energy of Empty Space that Isn't Zero," 2006).

Dr. Dickson's statement: "Nobody except Dr. Sungenis considers the 'Axis of Evil' to be evil" and that the pithy phrase was merely "a dig at Bush's war propaganda" is itself propaganda. Obviously, Dr. Dickson hasn't read the literature on this subject, so I'll take this opportunity to enlighten him. The phrase was coined by the discoverers, Land and Magueijo in 2005. They called it "evil" precisely because the CMB alignment with our ecliptic and equinoxes defies the Copernican principle – the principle which assumes the Earth is not in a special place. Here are their own words from their 2005 paper, appropriately titled "The axis of evil": "One may expect that the ever improving observations of CMB fluctuations should lead to the greatest vindication of this [Copernican] principle. Yet there have been a number of disturbing claims of evidence for a preferred direction in the Universe...the observed "axis of evil..." (p. 1). Here's more. *Scientific American* ran an article in Dec. 2011 titled "Universal Alignment," which states: "In recent years...scientists have discovered that these spots are not quite as randomly distributed as they first appeared – they align in a pattern that points out a special direction in space. Cosmologists have theatrically dubbed it the "axis of evil." Dragan Huterer, who worked with Copi, wrote an article in 2007 titled: "Why is the solar system cosmically aligned," and states: "Why CMB patterns are oriented to the solar system is not at all understood t this time...Kate Land and Joao Magueijo...found that temperature anisotropies...align with a particular axis close to the CMB dipole...They have humorously dubbed this odd alignment – apparently the same one we found – the "axis of evil" (*Astronomy*, Dec 2007, p. 43). Commenting on Huterer's article, Dr. Lawrence Vescera wrote the article, "The Discovery that Dare Not Speak Its Name," and states: "It has been discovered that the CMB, which pervades the entire Universe, is aligned to the Solar System...This discovery has been so disturbing to some scientists that it has been most inappropriately labeled 'The Axis of Evil.' Adding that "the Copernican Principle...is the opinion that humans are not privileged as observers...but the discovery that the CMB is cosmically aligned to the Earth should make the hair on the back of your neck stand up. It points to the fact that the Earth is at a special place in the Universe...and it is interesting to observe how the writers try to dance around this implication (the elephant in the room) without actually coming out and directly admitting the clear implication of these discoveries."

If Copi tries to explain the CMB alignment as having a Big Bang origin,

he admits on page 6 in his 2010 paper: “We have shown that the alignment of the quadrupole and octopole is inconsistent with Gaussian, statistically isotropic skies” (read “inconsistent with the Big Bang”). He later says that if “the observed anomalies have primordial origin, and potentially inform us about the conditions in the early universe” (namely, the Big Bang), he admits they are “contrived” and “not compelling” and “the cosmological model we arrive at is baroque, requiring the introduction at different scales and epochs of three sources of energy density that are only detected gravitationally – dark matter, dark energy and the inflation. This alone should encourage us to continuously challenge the model...” Why? Because as we all know, no one has found the dark matter and dark energy to make the Big Bang inflation operable. Copi then admits: “At the very least, probes of the large-angle properties of the CMB reveal that we do not live in a typical realization of the concordance model of inflationary LCDM” (pp. 13-14). In other words the CMB alignments with Earth’s equinoxes and ecliptic does not support the Big Bang. At least Copi is being honest with the data, even though he might still wish to be a Big Bang Copernican.

If Copi then opts for solar motion without the Big Bang, he still has problems. First, to assume “solar motion with respect to the rest frame defined by the CMB” is a classic case of *petitio principii* since no one can assume the CMB is at rest. And even if we were to allow Copi such a “definition,” he and the science community have two intractable problems: (1) how is Copi going to scientifically distinguish between an Earth moving toward the CMB at 370km/sec as opposed to the CMB moving toward a fixed Earth at 370km/sec, since Relativity allows both? Copi says “ $\theta$  is measured from the direction of motion” but he has no way of ascertaining what is moving and what isn’t; (2) if the CMB is at rest then obviously it cannot be moving with space faster than the speed of light as the Big Bang universe claims. (Yet when a geocentrist says that space is rotating at superluminal speed, which is even allowed by General Relativity, it falls on deaf ears).

Since we have no evidence of Dark Energy and Dark Matter, the suggestion has been made by other top cosmologists, such as George F. R. Ellis that “we should start questioning the Copernican principle.... Whatever our theoretical predilections, they will in the end have to give way to the observational evidence” (“Is the Earth at the Heart of a Giant Cosmic Void? *New Scientist*, Nov. 12, 2008, pp. 32-35). Hence, Timothy Clifton of Oxford has found a model that doesn’t need Dark Energy or Dark Matter, and guess what? It necessitates that the Earth be in the center of it all! Even Lawrence Krauss has no objections, since when Krauss commented in *USA Today* on a paper by Temple & Smoller

showing equations that make Dark Energy superfluous, Krauss concluded that the only way the equations could work is if earth is “literally at the center of the universe, which is to say the least, unusual.” [Dan Vergano, “Mystery Solved: Dark Energy Isn’t There”, *USA Today*, Science and Space News (Aug 2009)].

Tomazawa at Univ. of Michigan has gone a step further and has shown that “in the Friedman universe (read “Big Bang universe”)...there is no cosmic microwave background (CMB) dipole, even in the presence of a peculiar velocity. In other words, the observation of a CMB dipole excludes such an interpretation of the coordinates for the Friedman universe” (“The CMB Dipole and Existence of a Center for Expansion of the Universe,” 2008, p. 2). So that we don’t miss it, the “peculiar velocity” is Copi’s moving solar system through his wished-for motionless CMB. Tomozawa says that such a model wouldn’t produce a CMB dipole in the first place.

In light of all this evidence that puts the Earth in the center of the universe, we come along and, based on the 1887 Michelson-Morley, the 1913 Sagnac, and the 1925 Michelson-Gale experiments, say not only are we in the center, the empirical evidence shows the Earth isn’t moving, translationally or diurnally. We have plenty to back us up, including Albert Michelson who concluded from his own experiments: “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), and which led the great physicist Henri Poincaré to conclude: “A great deal of research has been carried out concerning the influence of the Earth’s movement. The results were always negative” (*La science et l’hypothèse*, 1901, p. 182); and even Albert Einstein: “I have come to believe that the motion of the Earth cannot be detected by any optical experiment” (“How I Created the Theory of Relativity,” Kyoto University, Japan, Dec. 14, 1922).

As for Dr. Dickson’s claim that I am “denouncing Pope John Paul II’s 1992 Galileo speech” and tossing aside the keys of the kingdom, I give a hearty laugh. Dr. Dickson simply contradicts himself about the papacy since, on the one hand, he ridicules Paul V and Urban VIII and their binding condemnation of heliocentrism as merely “the anti-scientific interpretation of Renaissance popes,” but on the other hand, he elevates Pope John Paul II’s non-binding words to the PAS as if it were Catholic dogma. Dr. Dickson needs to realize that John Paul II’s private speech to the PAS was neither Catholic dogma nor authoritative and certainly didn’t mention one word about officially rescinding the results of the 1633 Galileo trial that specifically condemned a moving Earth and a



stationary sun. In fact, John Paul II's 1992 speech is so open-ended that I often use it to support the geocentric model, especially when he remarks how Relativity gives us a hung jury on cosmology. Incidentally, since Dr. Dickson sides above with the fact that "evolution is a pseudo-science," I wonder why John Paul II's words, "evolution is more than a hypothesis," which were stated in a speech to the PAS in 1996, is not put on the same dogmatic pedestal by Dr. Dickson as John Paul's 1992 speech about Galileo. Curious, indeed.

Finally, Dr. Dickson, although boasting a Ph.D. in math, makes the classic mathematical blunder in his reasoning against a fixed Earth when he says, "And when the lunar astronauts watch the Earth turning, they are deluded." The simple fact is, if the astronauts are moving with a universe rotating in a 24-hour period around a fixed Earth (as the 1925 Michelson-Gale experiment showed), then the Earth will only appear as if it is rotating. So yes, Dr. Dickson, God isn't cruel, since what we see with our eyes on Earth (the sun and stars revolving around us), is the very thing Scripture teaches as the reality, and what the Fathers promoted in absolute consensus against the Greek heliocentrists, and what the Catholic tradition held for almost two millennia. Consequently, this leads us to the inevitable conclusion that the person who may be "endangering souls" is the one who denies all this tradition; besmirches the Fathers and demotes Scripture and then tries to support it with the unproven scientific claims about astronauts watching the Earth rotate. Bottom line: if Dr. Dickson has proof that the earth is moving, then I suggest he provide it. If not, then I suggest he stop engaging in pataphysics and pasquinades.