Response to *Chicago Tribune* Article on the Catholic Geocentrism Conference of November 2010

By Robert Sungenis

"All truth passes through three stages. First, it is ridiculed. Second, it is violently opposed. Third, it is accepted as being self-evident." Arthur Schopenhauer

R. Sungenis: In November 2010 we held our first Catholic geocentrism conference. We had nine speakers covering a wide range of cosmological topics. Most of the conference addressed the scientific evidence for a central and non-moving earth. The remaining talks concerned the patristic, scriptural and historical evidence. The *Chicago Tribune* heard of our conference and decided to send a reporter. Her name is Manya Brachear. I and James Phillips talked with Ms. Brachear several times before the conference, and in one of those encounters she gave me a full scale interview, which can be found at http://galileowaswrong.com/galileowaswrong/features/2.pdf and is included at the end of this commentary.

Since the *Chicago Tribune* published Ms. Brachear's article only a few months ago (July 2011), it has recently been picked up by the *L.A. Times* (August 27, 2011), and many other papers and media outlets. Since the article is now being circulated and seems to have generated a lot of interest both pro and con, I think it is time I made a few comments on it.

Although Ms. Brachear's article seemed like a polite effort to cover such a novel and controversial topic, I was rather disappointed by the fact that she (or her editors at the Chicago Tribune) decided to ignore most of what the conference was about - science. Six of the nine lectures were on science, which included everything from the 1887 Michelson-Morley experiment to the recent evidence showing the alignment of the dipole and quadrupole of the cosmic microwave background radiation with our ecliptic and equinoxes; to explanations of stellar parallax and aberration, the Foucault pendulum, the retrograde motion of Mars from both a heliocentric and geocentric system, and many other pertinent topics that the audience of well over a hundred patrons, including many college students from Notre Dame, were astounded to hear for the first time in their lives. Even the two-hour QA session towards the end of the conference delved mostly into science. But you would never know this from reading Ms. Brachear's article. She has exactly one sentence addressing the science portion of our conference, and even then it is very general. Most of her article deals with various reactions to our conference from those who either have a bias against it or have never really studied the issue. I guess I should not be overly surprised. I experienced much the same when Dru Sefton of the *Picayune-Times* wrote an article about me in 2006, although Ms. Sefton was much worse.

With those introductory remarks aside, I will comment in more detail throughout Ms. Brachear's article:

Some Catholics seek to counter Galileo

Splinter group says the Earth, not the sun, is, indeed, at the center of the universe



By Manya A. Brachear, Tribune reporter

July 4, 2011

M. Brachear: Some people believe the world literally revolves around them. It's a belief born not of selfishness but faith.

A small group of conservative Roman Catholics is pointing to a dozen biblical verses and the Church's original teaching as proof that the Earth is the center of the universe, the view that prompted <u>Galileo Galilei</u>'s clash with the Church four centuries ago.

R. Sungenis: Although it is true that we include both the Church's official teaching and many verses from the Bible in our presentation, we do not use these as "proof that the Earth is the center of the universe," for the simple fact that neither source says the Earth is the center of the universe. That the Earth is the center is certainly implied by both sources, but there is no direct statement to that effect. Rather, both sources say that the Earth does not move and that the sun and stars revolve around the Earth. We interpret this to mean it is in the center.

Second, it is incorrect to identify this group of "conservative Roman Catholics" as a splinter group. Resurgent interest in geocentrism can be found across many religious groups, and there are some modern defenders of the geocentric hypothesis who are not members of any religious group at all. I do think all would agree that, if science had irrefutably proven that the Earth revolves around the sun, we would not be engaged in this endeavor. We would have adjusted our interpretation of Scripture to fit with the instruction of St. Augustine, that is, if science ever proves its case we will maintain that the Bible only speaks figuratively on cosmological topics. The whole basis for our movement, however, is that science has not proven the Earth moves and, in fact, mounting scientific evidence over the last one hundred years or so, and especially in the last 20 years, has shown astounding evidence that the Earth is, indeed, in the center of the universe. We didn't invent these ideas. They come from some of the top cosmologists in the world today. In fact, when we happen to catch these cosmologists admitting to a central Earth, we sometimes find them trying to hide these same admissions when the media spotlight comes upon them. Such was

the case, for example, when Lawrence Krauss of Arizona State University was interviewed by Dru Sefton in May 2006 when he was at Case Western University. Ms. Sefton used Dr. Krauss as my opponent, quoting him saying "What works? Science works. Geocentrism doesn't. End of story." On the Internet, however, we found Dr. Krauss giving a whole different testimony on geocentrism when he wrote his article "The Energy of Empty Space That Isn't Zero" just two months later in July 2006.¹

So let's make it clear from the outset. We don't wear tin foil hats and wait for messages from outer space. We don't just spit out Bible verses and ignore the science. We take our model from St. Paul who suggested in 1 Corinthians 9:20 that we should become all things to all people when we preach the Gospel. To scientists who want to talk science, we'll be scientists and talk science. As such, we can show these scientists that the popular science touted in universities today involves foundational assumptions which are philosophical, not scientific, in nature. For example, today's Big Bang cosmology simply doesn't work unless it is injected with 96% energy and matter that has never been observationally detected, despite decades of lavishly funded experiments to find it (including the 1 billion dollar Hadron collider). Yes, you heard that correctly. And unless these exotic forms of matter and energy can be experimentally identified, the Big Bang theory increasingly relies upon more and more assumptions involving less and less observable entities. These are serious questions. Unless this 96% missing stuff is found, the Big Bang theory remains on life support. And guess what the kicker is? Those sympathetic to a geocentric view of the universe in the scientific community tell us that we can do away with the need for this 96% missing stuff if science would be willing to abandon the Copernican principle and understand that Earth occupies a void area in space. You can find this written by Professor Timothy Clifton from Oxford.²

We can also show that modern academia has done its best to sweep under the proverbial rug opposing scientific facts that go against its preferred models of the universe. The scientific hypocrisy of Lawrence Krauss cited above is just the tip of the iceberg. When we

¹ Ms. Sefton's article in the *Picayune-Times* states: "Mention geocentrism and physicist Lawrence Krauss sighs. He is director of the Center for Education and Research in Cosmology and Astrophysics at Case Western Reserve University and author of several books including Fear of Physics: A Guide for the Perplexed. "What works? Science works. Geocentrism doesn't. End of story," Krauss said from Cleveland. "I've learned over time that it's hard to convince people who believe otherwise, independent of evidence." But in Krauss' article written in July 2006 concerning the alignment of the CMB's dipole and quadrupole with our equinoxes and ecliptic, he states: "But when you look at CMB map, you also see that the structure that is observed, is in fact, in a weird way, <u>correlated with the plane of the earth around the sun</u>. 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 ecliptic. <u>That would say we are truly the center of the universe</u>, 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" (my emphasis).

² Timothy Clifton, Pedro G. Gerreira, and Kate Land, "Living in a Void: Testing the Copernican Principle with Distant Supernovae," Physical Review Letters, 101, 131302 (2008) DOI: 10.1103/PhysRevLett.101.131302; popularly written in "Dark Energy: Is it Merely an Illusion?" ScienceDaily, Sept. 29, 2008.

get down to the real nuts and bolts of modern cosmology we find one person sitting on the top of the hill, Albert Einstein. We show through expert scientific analysis that Einstein invented his Relativity theory precisely to escape the empirical evidence from science that the Earth was standing still in space – just like the Bible and the Catholic Church popes have said. Imagine that. All of the gory details of the scientific analysis were mentioned at the November 2010 geocentrism conference, but Ms. Brachear and her editors didn't mention a word of it to her audience.³ Why? Perhaps the *Chicago Tribune* didn't feel qualified talking about the science. I can give them that much. Perhaps a more likely possibility is that this particular topic strikes fear into the heart of man, since, as history shows, no society likes having its orthodoxy questioned. If you want confirmation of this fear, read the comment boxes of the LA Times article and the other dozens of news outlets that released Ms. Brachear's article this week (August 27, 2011). Not only do people fear that we are bringing back good ol' time religion, some fear even more that we are destroying the foundations upon which their human existence is built, which, for the last century or so, has been built on the accepted conclusions of the Copernican revolution and the modern Big Bang theory. After all, as Sloat said to Natalie in the Winds of War: "Christianity is dead and rotting ever since Galileo cut its throat."⁴ There is nothing the world would like better than for Christianity to die a quick death so that the world can live the way it desires and believe what it wants without religion interfering. So, when a group like we geocentrists claim not to have religion but also have science to back it up, that's a dynamic combination that strikes fear into the most resolute of secular men.

M. Brachear: The relatively obscure movement has gained a following among a few Chicago-area Catholics who find comfort in knowing there are still staunch defenders of original Church doctrine.

"This subject is, as far as I can see, an embarrassment to the modern church because the world more or less looks upon geocentrism or someone who believes it in the same boat as the flat Earth," said James Phillips, of Cicero.

Phillips attends Our Lady Immaculate Catholic Church in Oak Park, a parish run by the Society of St. Pius X, a group that rejects most of the modernizing reforms the <u>Vatican</u> II council made from 1962 to 1965.

³ Note these quotes from major scientists of the day which are on the opening pages of Galileo Was Wrong: "I have come to believe that the motion of the Earth cannot be detected by any optical experiment." Albert Einstein; "Briefly, everything occurs as if the Earth were at rest..." Henrick Lorentz; "There was just one alternative; the earth's true velocity through space might happen to have been nil." Arthur Eddington; "The failure of the many attempts to measure terrestrially any effects of the earth's motion..." Wolfgang Pauli; "We do not have and cannot have any means of discovering whether or not we are carried along in a uniform motion of translation." Henri Poincaré; "A great deal of research has been carried out concerning the influence of the Earth's movement. The results were always negative." Henri Poincaré; "This conclusion directly contradicts the explanation...which presupposes that the Earth moves." Albert Michelson; "The data were almost unbelievable… There was only one other possible conclusion to draw — that the Earth was at rest." Bernard Jaffe; "...nor has any physical experiment ever proved that the Earth actually is in motion." Lincoln Barnett.

⁴ Herman Wouk, *The Winds of War*, p. 600.

R. Sungenis: Of course, it is irrelevant that James attends the Society of St. Pius X (SSPX) chapel on Sundays. Ms. Brachear's subtle attempt here is to say that we as a group believe in geocentrism because we have rejected the beliefs of modern Catholicism. But the reality is, none of the nine speakers at our conference are members of the SSPX; and none of us are members of any other traditionalist group (e.g., Pius V, sedevacantists). For that matter, Mr. Phillips is not a member of the SSPX, nor has he ever been a member. He simply attends one of their chapels. We are all practicing members of the modern Catholic Church. None of us reject Vatican Council II. In fact, I quote from Vatican Council II in my book, *Galileo Was Wrong: The Church Was Right*, in order to support geocentrism (e.g., Lumen Gentium 12 & 25). As a group, we merely stress the traditional beliefs of Catholicism more than most modern Catholics, and with good reason – the Church is built on her Tradition; and it is an authority equal to and alongside of Scripture.

M. Brachear: But by challenging modern science, the proponents of a geocentric universe are challenging the very church they seek to serve and protect.

R. Sungenis: How so? Has there been any official statement from the modern Catholic Church which denies geocentrism and says that heliocentrism is the only view for Catholics? Ms. Brachear won't be able to find one. Certainly the vast majority of today's prelates believe in modern cosmology, but none of those opinions have been taught as official and binding doctrine of the Catholic Church. So obviously we cannot be "challenging the very church they seek to serve and protect." Rather, we are simply attempting to form our conscience in accord with all of the teachings of the magisterium, in all of its Tradition. In this regard, the Church officially adopted geocentrism as the correct cosmological view.

We hear today in Catholic pews a lot of talk about heliocentrism, relativity, the Big Bang, theistic evolution, etc., but in no place has the modern Catholic Church ever officially rejected the cosmology of Catholic tradition. Indeed, it seems difficult to suggest such a rejection in light of the fact that the Church Fathers unanimously upheld geocentric cosmology as the plain teaching of Scripture itself, and the Council of Trent said we were bound by such patristic consensus. The Church put the weight of her magisterium under two popes (Paul V in 1616 and Urban VIII in 1633) into condemning both Galileo and heliocentrism under canonical sanction. Her own 1566 Tridentine catechism teaches geocentrism in four separate places. Unless there is absolute indisputable proof from science that the Earth moves, the Church will never make an official statement against geocentrism. That is a fact. Suffice it to say, science hasn't even come close to proving geocentrism is made the more credible model. Take this recent article from *Newsweek* as just one example:

Astronomers will find it hard to settle that troubling sensation in the pit of their stomachs. The truth is that when it comes to swallowing uncomfortable ideas, dark energy may turn out to be a sugar-coated doughnut compared to a rejection of the Copernican principle."⁵

⁵ "Dark Energy and the Bitterest Pill," July 14, 2008 at the Physics arXiv blog.

This startling possibility can be accommodated by the standard cosmological equations, but only at a price. That price is introducing dark energy – an unseen energy pervading space that overwhelms gravity and drives an accelerating expansion. Dark Energy is problematic. No one really knows what it is. We can make an educated guess, and use quantum theory to estimate how much of it there might be, but then we overshoot by an astounding factor of 10¹²⁰. That is grounds enough, says George Ellis...to take a hard look at our assumptions about the universe and our place in it. "If we analyse the supernova data by assuming the Copernican principle is correct and get out something unphysical, I think we should start questioning the Copernican principle.... Whatever our theoretical predilections, they will in the end have to give way to the observational evidence."

So what would it mean if...the outcome were that the Copernican principle is wrong? It would certainly require a seismic reassessment of what we know about the universe....If the Copernican Principle fails, all that goes that [the Big Bang] goes out the window too....Cosmology would be back at the drawing board. If we are in a void, answering how we came to be in such a privileged spot in the universe would be even trickier.⁶

M. Brachear: "I have no idea who these people are. Are they sincere, or is this a clever bit of theater?" said Brother Guy Consolmagno, the curator of meteorites and spokesman for the Vatican Observatory.

R. Sungenis: Theater? That merely shows how ignorant Br. Consolmagno is of our scienctific endeavors. But let's go back a few years when his tune was not so sardonic. When Br. Consolmango had the chance to deny geocentrism and promote heliocentrism as the only viable scientific model, he declined to do so. Although Bro. Consolmango feigns ignorance of us when he says "I have no idea who these people are," the fact is I was in a debate with him on the BBC several years ago on the very topic of geocentrism. In the debate he was challenged to disprove geocentrism by a rather impatient moderator. In fact, he was asked three times by the moderator but Guy chose not to do so. The program ended on that note. We transcribed part of the debate. See this link:

http://veritas-catholic.blogspot.com/search?q=Consolmagno

Here is an excerpt:

BBC Interviewer: "So, Dr. Sungenis, you believe that the sun goes around the earth, is that correct?"

Sungenis: "Yes, and so do a lot of other people."

BBC Interviewer: "Like who?"

⁶ Marcus Chown, "Is the Earth at the Heart of a Giant Cosmic Void? *New Scientist*, Nov. 12, 2008, pp. 32-35.

Sungenis: "Well, they won't come right out and admit it, but they do hold that geocentrism is just as valid a model of cosmology as heliocentrism."

BBC Interviewer: "And who are these people?"

Sungenis: "Oh, people like Albert Einstein, Ernst Mach, Julian Barbour...."

[At this point, the interviewer interrupted and turned to Guy Consolomagno].

BBC Interviewer: "Bro Consolmagno, do you believe that the sun revolves around the earth?"

Consolmagno: "Well, let's put it this way. It's easier to make calculations with the earth going around the sun."

[At this point I could tell the interviewer sensed that the whole thing was exploding in his face. So he tried to pin Consolmagno down to denying geocentrism].

BBC Interviewer: "But Bro Consolmagno, we are talking here about reality. Regardless of whether the math works easier, is it true or not that the sun goes around the earth?"

Consolmagno: "Well, like I said, it's easier to work with the earth going around the sun."

So let me ask Br. Consolmagno: was the BBC interview just "theater" for you or did we not hear you say that you really had no proof against geocentrism, and that the best you can say is that you think it is "easier to work with the earth going around the sun"? For someone who accuses us of just wanting the limelight, we might ask Br. Consolmagno why he even entered the BBC debate if he could not refute what he told Ms. Brachear was just "theater."

M. Brachear: Indeed, those promoting geocentrism argue that heliocentrism, or the centuries-old consensus among scientists that the Earth revolves around the sun, is nothing more than a conspiracy theory to squelch the church's influence.

"Heliocentrism becomes 'dangerous' if it is being propped up as the true system when, in fact, it is a false system," said Robert Sungenis, leader of a budding movement to get scientists to reconsider. "False information leads to false ideas, and false ideas lead to illicit and immoral actions — thus the state of the world today. ... Prior to Galileo, the church was in full command of the world; and governments and academia were subservient to her."

R. Sungenis: Let's be fair here. Is it only *we geocentrists* saying that one of the benefits of modern cosmology for secular society is that it could then unchain itself from the authority of the Church? Above I quoted the statement from Sloat to Natalie in the *Winds of War*:

"Christianity is dead and rotting since Galileo cut its throat." Sounds to me like Sloat was on to something. He said it long before I did. Or let's take a guy like Fredrich Nietzsche – the man who coined "God is dead" phrase. Few people realize that Nietzsche connected the "God is dead" movement with the advent of the Copernican Principle.

Where has God gone?" he cried. "I shall tell you. We have killed him – you and I. We are his murderers. But how have we done this? How were we able to drink up the sea? Who gave us the sponge to wipe away the entire horizon? What did we do when we unchained the Earth from its sun? Whither is it moving now? Whither are we moving now? Away from all suns? Are we not perpetually falling? Backward, sideward, forward, in all directions? Is there any up or down left? Are we not straying as through an infinite nothing? Do we not feel the breath of empty space?⁷

Or let's just take the simple case with what Albert Einstein was confronted after the 1887 Michelson-Morley experiment. As his biographer puts it:

"The problem which now faced science was considerable. For their 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."⁸

That's interesting. How can a viable scientific answer (i.e., a motionless Earth) to one of the most puzzling experiments ever performed be "unthinkable"? Einstein decided arbitrarily to rule out from the get-go a perfectly logical solution to the empirical data. Why? Do you think it had anything to do with the fact that it was the Catholic Church who had once used that "unthinkable" solution to condemn Galileo and his heliocentrism? Don't be naïve. This is real life and real wars are fought every day to gain political, cultural, religious power. Many today believe scientists are impeccable specimens of honesty and impartiality but they, like everyone else, have their own political, philosophical, and yes, financial axes to grind.

M. Brachear: Sungenis is no lone Don Quixote, as illustrated by the hundreds of curiosity seekers, skeptics and supporters at a conference last fall titled "Galileo Was Wrong. The Church Was Right" just off the University of Notre Dame campus in <u>South Bend</u>, Ind.

Astrophysicists at Notre Dame didn't appreciate the group hitching its wagon to the prestige of America's flagship Catholic university and resurrecting a concept that's extinct for a reason.

R. Sungenis: We didn't "hitch our wagon" to Notre Dame. We chose South Bend because one of our conference speakers lived in South Bend and he has held conferences in the same hotel previously, not to mention that the hotel was very accommodating and

⁷ "The Gay Science" in Nietzsche's Thus Spoke Zarathustra (1885).

⁸ *Einstein: The Life and Times,* pp. 109-110.

inexpensive. But speaking of Notre Dame, this same conference speaker, E. Michael Jones, wrote a book about this so-called "flagship Catholic university" titled, "Is Notre Dame Still Catholic?" (Fidelity Press, 2009), as did Charles Rice with his book "What Happened to Notre Dame?" (St. Augustine Press, 2009) in the aftermath of the university's promotion of homosexuality and abortion, among other moral aberrations. The long and short of it is, when Catholic institutions began to accept government money in the 1960s, each of them were then pressured to conform to the government's Rockefellerian social agenda, which meant accepting, subtly at first and then with abandon later on, all the debauchery that is now practiced on a regular basis in our society. So no, we didn't "hitch our wagon" to Notre Dame, since we wouldn't want to be associated with an institution who has departed from the Catholic faith. I will say, however, that the Notre Dame students who came to our conference, with a few notable exceptions, were well-behaved and inquisitive. We gave them many free books to take back to the university. I was happy they were there.

M. Brachear: "It's an idea whose time has come and gone," astrophysics professor Peter Garnavich said. "There are some people who want to move the world back to the 1950s when it seemed like a better time. These are people who want to move the world back to the 1250s. I don't really understand it at all."

R. Sungenis: Perhaps Mr. Garnavich doesn't "understand it at all" because, following Einstein, he has been trained by his academic superiors that a motionless Earth, even though it was a completely plausible solution to the experimental evidence that was gathered over the previous hundred years, was rendered "unthinkable" by the scientific elite because they feared the dire philosophical and societal implications it presented to them. For them, not only would the world have stopped physically, it would have stopped figuratively as well. Additionally, perhaps Garnavich isn't familiar with the evidence presented by astrophysicist Lawrence Krauss that the CBM is pointing to the Earth as the center of the universe. It's a shame because, Garnavich, as well as every other astrophysicist and cosmologist at Notre Dame, was invited to come to the conference free of charge to hear the latest scientific evidence (evidence that I might add, no one had either in the 1950s or the 1250s) to come and see why this group of Catholics (and a few non-Catholics, since two of the speakers were Protestants), who talked basically about science, would risk their reputations and careers speaking about the unresolved issues concerning Galileo and the Catholic Church. Bottom line? Mr. Garnavich will never "understand" unless he opens his heart and mind to at least see the evidence. Perhaps what's holding him back is that he knows as soon as he starts questioning the status quo of popular science, he is putting his job at Notre Dame and his very career at high risk.

M. Brachear: Garnavich said the theory of geocentrism violates what he believes should be a strict separation of church and science. One answers why, the other answers how, and never the twain should meet, he said.

R. Sungenis: Well, now we see what the problem is. It's not that geocentrism necessarily violates the scientific data. It only violates the prejudices of Peter Garnavich which he has already formed in his mind, that is, that the paths of religion and science shall not intersect at any time. He has been well-trained by his academic superiors. This is a product of what

the Jesuits (another Catholic institution which has a history of capitulating to the world) brokered with the secularists many years ago, and what Stephen Gould promoted with his NOMA acronym (Non Overlapping Magisteriums) between science and religion. But all this is against Church Tradition which has always held to the belief that true science and true religion will never conflict, since all truth is one. There cannot be two separate truths that conflict with one another; otherwise we violate the law of non-contradiction.

M. Brachear: But supporters of the theory contend that there is scientific evidence to support geocentrism, just as there is evidence to support the six-day story of creation in <u>Genesis</u>.

R. Sungenis: Ms. Brachear can only muster one sentence about the scientific evidence for geocentrism presented at a ten-hour conference where science was the main focus?? We presented scientific evidence that very few in the world have had the opportunity to consider, and yet this one sentence is all we get about the actual scientific issues! How sad.

My guess is that the *Chicago Tribune* didn't expect such technical scientific evidence to be presented at the conference and instead thought that it would consist of people donning tin-foil hats and hurling anathemas from the podium. Hence, the editors did not send someone who knew the science of cosmology, but someone who would spend most of her time trying to frame the conference into a question of religious intrigue. Incidentally, James Phillips relayed to me how Ms. Brachear pleaded to take a photo of him in front of the SSPX chapel he attends. Mr. Phillips' impression was that Ms. Brachear wanted to make it appear as if Catholics who believe in geocentrism constitute some sort of fringe group already rejected by the mainline Church. Little did she know that the SSPX chapel Mr. Phillips attends does not embrace geocentrism and does not sell any geocentrism books in its bookstore. Even more ironic is the fact that the SSPX schools in the United States are presently teaching heliocentrism, not geocentrism. Mr. Phillips was personally informed of this by the Rev. Fr. Gerard Beck who was the official overseer of all the SSPX schools in the U.S.

M. Brachear: There is proof in Scripture that the Earth is the center of the universe, Sungenis said. Among many verses, he cites Joshua 10:12-14 as definitive proof: "And the sun stood still, and the moon stayed, while the nation took vengeance on its foe. ... The sun halted in the middle of the sky; not for a whole day did it resume its swift course."

R. Sungenis: As I said above, if science could give us indisputable proof that the earth goes around the sun, I would be the first person to say that Joshua must be interpreted figuratively or in some mechanical solution that allowed the earth to rotate and revolve. I was of that very opinion for most of my life until I started to study the scientific evidence for why Joshua should be interpreted literally. The scientific evidence is what I wanted Ms. Brachear to see and hear. But even when I did a full scale interview with her and loaded it up with scientific facts for the geocentric position, Ms. Brachear ignored it all and chose to fashion her article by injecting it with glib quotes from our opposition (e.g., Guy Consolmango, Peter Garnavich, and the classic "conspiracy theory" approach).

M. Breachear: But Ken Ham, founder of the Creation Museum in Petersburg, Ky., said the Bible is silent on geocentrism.

"There's a big difference between looking at the origin of the planets, the solar system and the universe and looking at presently how they move and how they are interrelated," Ham said. "The Bible is neither geocentric or heliocentric. It does not give any specific information about the structure of the solar system."

R. Sungenis: Unfortunately, ever since the Protestant Henry Morris decided back in the 1970s that he was going to make the Protestant Christian community ignore the scientific evidence of geocentrism and concentrate only on the creation v. evolution debate, he has convinced a whole slew of followers, including Ken Ham, to do the same. Most Protestants are oblivious to geocentrism because the Morris-Ham block has made a concerted effort to keep it from them. What ends up happening is that those who work for the Protestant creation institutions (*Answers in Genesis, Creation Research Institute*, et al.), are told to ignore or discredit the geocentric proponents under threat of losing their jobs. So, as the Protestant geocentrist Walter van der Kamp found out early on, Protestants of the AIG and CRI mentality preach a very confused version of biblical hermeneutics. The verses of Genesis 1 (Genesis 1:20-31) that speak of creation on the fifth and sixth days are taken very literally, in content and chronology, in order to combat evolution, but the verses (Genesis 1:1-19) that speak of the first to fourth days are interpreted any which way the Protestant desires, as long as he does not interpret them literally.

So we have Protestants such as Danny Faulkner saying, "the Bible is neither heliocentric or geocentric,"⁹ or Russell Humphries who says that Genesis 1:1 teaches the universe came out of a white hole and follows Einstein's Relativity, thus contradicting the fact that Genesis says the earth was created before the rest of the universe; or Hugh Ross who says that the sun was already created on the first day but was blocked by a big cloud that resulted from an asteroid hitting the Earth, which cloud dissipated on the fourth day so that we could see the sun. Anything goes but what Genesis 1:1-19 actually says, *i.e.*, that the earth was created first; then the firmament or heavens; then the plants; then the sun and stars. Ham apparently thinks that the easiest way to handle Genesis 1:1-19 is by what he either told Danny Faulkner or what he got from him, that is, the neutral yet unbiblical notion that the Bible is "neither heliocentric nor geocentric." Of course, if someone had said to Ken Ham, "the Bible is neither evolutionary nor creationist" Ham would not be very pleased, since his whole ministry of *Answers in Genesis* is based on the idea that we must take Scripture literally; and that because of this literal hermeneutic we must accept creationism.

In the end, the idea that "the Bible is neither heliocentric or geocentric" is just a cop out. There is about twice as much information in the Bible about cosmology (i.e., the geocentric structure of the cosmos) than there is cosmogony (i.e., the creation origin of the cosmos), and all of it says the earth stands still and the sun moves, yet Ham, for whatever his reasons, has decided to deny the former and teach the latter. This is one of the most blatantly contradictory positions I have ever come across. But if you believe as Henry

⁹ Creation Ex Nihilo Technical Journal, August 1, 2001.

Morris did back in the 1970s that defending geocentrism from the Bible would be a bit too embarrassing when you are, at the same time, trying to make a case for creationism against evolution, then it makes perfect sense why Ham chose to bifurcate Genesis. In the end, Ham merely displays the contradictions that are inherent in his whole approach to both Scripture and science.

M. Brachear: Just as Ham challenges the foundation of natural history museums, Sungenis challenges planetariums, most notably the Vatican Observatory. Consolmagno said the very premise of going after Galileo illustrates the theory's lack of scientific credibility. "Of course, we understand the universe in a far more nuanced way than Galileo did 400 years ago," he said. "And I would hope that the next 400 years would see just as much development."

R. Sungenis: As he displayed in the BBC interview, Consolmango seems confused. How could challenging Galileo "lack scientific credibility" since we come to the table with empirical scientific evidence to back up our claims against Galileo? Consolmango simply doesn't want to hear the scientific evidence since he is convinced his scientific position should remain unchallenged. This is typical of the scientific elite. Unfortunately, Congolmango is a product of what he was taught at his alma mater, and there is no institution of higher learning that wants to accept, much less teach, the scientific evidence supporting geocentrism. If any professor did, he would lose his teaching position in a heartbeat. The reality is, Consolmango is not presently well-equipped to address the scientific issues surrounding geocentrism, especially the truly shocking, very recent cosmological observations showing a preferred axis in the CMB pointing directly at Earth, and the polarization of light from quasars along the same Earth-intersecting axis. But as we saw in the BBC interview, Consolmango knew enough not to commit himself too much. He has obviously read and understood the implications of Einstein's relativity theory, which denies the possibility of establishing any preferred reference frame, thus demolishing all of Galileo's (and subsequent) "proofs" of heliocentrism.

M. Brachear: But Sungenis said the renewed interest in geocentrism is due, in part, to the efforts of Christians entering the scientific domain previously dominated by secularists. These Christian scientists, he said, showed modern science is without scientific foundation or even good evidence.

R. Sungenis: And as I said, it would have been an exercise of professional courtesy, at the least, for Ms. Brachear to mention just one of those scientific evidences. It would have been professional courtesy for her to have included our website (<u>www.galileowaswrong.com</u>) or our blog (<u>www.galileowaswrong.blogspot.com</u>) so that the public could see our responses to objections, or perhaps see a comment on the 700 pages of scientific evidence we put in our book *Galileo Was Wrong: The Church Was Right*, of which Ms. Brachear was given a copy long before the conference. But it appears the name of the game is to disallow the geocentrists to state their scientific case and instead paint them as mere Bible thumpers who somehow missed the train to modernism.

M. Brachear: The issue has even sparked a debate between Art and Pat Jones, of Lyons. Pat Jones, a conservative Catholic who often attends Mass at Phillips' parish, said heliocentrism is part of a conspiracy.

"Because of our fallen nature in Christian terms, we take the line of least resistance — go with the flow," said Pat Jones. "But the means of grace have to be intact."

Her husband, Art, a self-described skeptical Protestant, says he is still a "doubting Thomas" but wouldn't put it past the orthodox science community to cook up a conspiracy. He accompanied his wife to the South Bend conference to learn more and "keep peace in the family."

Meanwhile, the theory has brought others like Phillips closer to God.

"I dropped my practice of faith," Phillips said. "When I came back, it was a big wake-up call for me. ... The world has its own dogmas."

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R. Sungenis: To close out my commentary, I am going to include the actual interview I did with Ms. Brachear, out of which she took only one sentence for this interview and ignored all the material I gave her that would show her readers our scientific and historical evidence.

I will also include the lecture I gave this past July at the National Philosophy Alliance's 18th annual meeting at the University of Maryland on the scientific merits of geocentrism.

Interview with the Chicago Tribune, September 22, 2010 Manya Brachear

Chicago Tribune Religion Reporter

Manya,

My thanks to you as well for following up on this. I will be happy to answer your questions.

Robert Sungenis

Manya: Thanks for getting back to me so quickly, Robert. I spoke with James Phillips as well, but I think you would be the best person to answer some specific questions.

R. Sungenis: I am glad you talked with Mr. James Phillips. I need to say one thing about that interview, however. James is not and should not be understood as a representative of myself, CAI Publishing, Inc. (who is sponsoring the conference) or any of the speakers of the conference or anyone affiliated with the conference. James is not a speaker at the conference. James is a friend of mine who has taken an avid interest in geocentrism and has subsequently been very helpful in lending a helping hand to advertise the conference, including contacting you, as I understand. I do not know the content of his interview with you, and thus I cannot endorse it nor can I allow it to represent us in any way. The only interview about the conference that can be used for your report with the *Chicago Tribune* is the one I am giving you now. I must do this for liability reasons as well as academic reasons. I hope you understand. I have already told James of this matter and he has agreed that his interview with you is not to be used to represent me or the conference and is to be considered merely a private interview with you that is totally independent of me or the conference.

Manya: Why did the church stray from geocentricism? What is dangerous and misleading about the theory of heliocentrism? (I am assuming that you consider heliocentrism a theory much like evolution?)

R. Sungenis: Just so that you don't misspell it in your article, the correct spelling is geocentrism. Incidentally, all the information I am about to give you here is documented in my two volume work: *Galileo Was Wrong: The Church Was Right.*, available from CAI Publishing, Inc.

The event with the most impact on the society at large in favor of heliocentrism was Isaac Newton's *Principia Mathematica*, published in 1687, which formulated the laws of gravity and motion. Newton was understood to teach that the smaller body must revolve around the larger body, thus, it was believed that the earth must revolve around the sun, not viceversa. Neither scientists nor clerics could mount much of an argument against Newton's thesis and thus the tide against geocentrism began to gain momentum. The Catholics that remained with the Church's traditional view of geocentrism did so based on their allegiance to the Church's patristic consensus, the centuries of tradition prior to Newton, and the allegiance to papal authority, namely, the four popes of the 16th and 17th centuries who had condemned heliocentrism as "opposed to Scripture" and "formally heretical" (e.g., Popes: Pius V, Paul V, Urban VIII and Alexander VII). For example, Pope Urban VIII approved this condemnation of heliocentrism at the 1633 trial of Galileo: "The proposition that the sun is the center of the world and does not move from its place is absurd and false philosophically and formally heretical, because it is expressly contrary to the Holy Scripture; The proposition that the Earth is not the center of the world and immovable but that it moves, and also with a diurnal motion, is equally absurd and false philosophically and theologically considered at least erroneous in faith"). A good example of the allegiance to these papal decrees is noted in the 1833 Glasgow edition of Newton's Principia wherein the Catholic editors, Jacquier and Le Seur, put this disclaimer in the opening pages: "Newton in his third book assumes the hypothesis of the earth's movement. The author's propositions could not be explained except on the same hypothesis. Hence we have been obliged to put on a character not our own. But we profess obedience to the decrees made by the Supreme Pontiffs against the movement of the earth."

We have since discovered after the time of Newton that, although it is correct to say in general that the smaller body must revolve around the larger body, it would only be true in our case if the earth and sun were isolated from the rest of the universe, which contains trillions of stars with gravitational force much greater than the sun's. In reality, Newton did not teach that the smaller must go around the larger; rather, he taught that all celestial bodies will revolve around the center of mass. As such, even Newton agreed in his *Principia* that the earth could occupy the center of mass if all the other bodies in the universe were strategically placed around it so that all their gravitational masses balanced out at the center. In short, this is the scientific basis for geocentrism – the earth is the center of mass for the universe, and thus the universe will revolve around the around the late 19th century and not advertised until the mid 20th century.

Under the pressure of Newton's *Principia*, as well of a few unsubstantiated claims of stellar parallax, various clerics of the Catholic Church made motions toward softening the stance against heliocentrism. Stellar parallax was thought to provide evidence of heliocentrism

since it was believed that the only way parallax could be observed from earth is if the earth were revolving around the sun, and thus make it possible to view two stars at six month intervals and see an angle of separation. We now know from modern science, however, that stellar parallax can also be observed from a geocentric system if the revolution of the stars is centered on the sun rather than the earth, and therefore stellar parallax does not prove heliocentrism.

Nevertheless, due to the common (though misguided) presumption of Newton's force laws and stellar parallax, Catholic clerics felt great pressure to conform to the apparent dictates of science and thus the Church made its first departure from geocentrism when it gave an imprimatur to Canon Giuseppe Settele in 1822 for his book *Elements of Optics and Astronomy* which, according to the commentaries, was the first book after the Church's 1616 and 1633 condemnations of heliocentrism to treat heliocentrism as a thesis instead of a hypothesis.

But here is the other half of the story. The manner in which the imprimatur was granted was quite devious. The cleric in charge of issuing the imprimatur, Maurizio Benedetto Olivieri, knew the papal condemnations against heliocentrism were sacrosanct and could not be changed. Since that was the case, Olivieri decided that he would change the *basis* for the condemnations by posing that the 17th century popes were merely condemning the Copernican version of heliocentrism, not heliocentrism itself. Olivieri reasoned that, since Kepler found that Copernicus' system did not work with the planets revolving in perfect circles and would work better if the orbits were changed to ellipses, then the Church would have accepted Kepler's version of heliocentrism while condemning Copernicus'. It was on this manufactured foundation that Settele received his imprimatur. But Olivieri's reasoning was fallacious on two counts: first, the Church in 1616 and 1633 had specifically condemned *any* thesis which held that the earth moved or that the sun did not revolve around the earth, and said nothing about how the bodies revolved; second, Kepler's heliocentrism had already been condemned and placed on the Index of Forbidden books by Pope Alexander VII in 1664. Olivieri had one small excuse, however. In 1809 Napoleon had stormed the Vatican and took all the records dealing with Galileo and brought them to France. They were not returned until 1843 (21 years after Settele's imprimatur) and thus the Church had little historical data to properly adjudicate the Settele case, except the Index of Pope Benedict XIV from 1757. Pope Benedict XIV had kept Galileo and Copernicus on the Index, but had allowed general works teaching heliocentrism provided it was taught as hypothetical, not as a thesis. Additionally, receiving an imprimatur does not mean that the Church is bound to accept whatever is written in the book. Galileo had received an imprimatur from Cardinal Riccardi for his controversial book in 1631, but it was promptly rescinded in 1632 when Pope Urban VII discovered it.

The Church's next movement relaxing it's prohibition on heliocentrism was the removal of Copernicus' and Galileo's books from the Index in 1835 under Pope Gregory XVI (who was formally Cardinal Capellari and who had served on the committee to give Settele an imprimatur). Similar to the Settele affair, however, this decision was made under false pretenses. Various clerics in favor of heliocentrism (for by this time the clerics were clearly divided) proposed that an instance of stellar parallax had been discovered a hundred years earlier by James Bradley and that this evidence should be used as proof for heliocentrism. Under this information, Copernicus and Galileo were taken off the 1835 Index. But the information was later found to be false, since Bradley did not discover stellar parallax but stellar aberration. Stellar parallax wasn't discovered until three years after the 1835 Index, by Friedrich Bessel in 1838. But, as I noted above, we now know from modern science that even stellar parallax does not prove heliocentrism, and thus the removal of Copernicus and Galileo from the 1835 Index was premature and made under false pretenses.

As noted earlier, during this same time Newton's *Principia* was still being censored in 1833 by Catholic editors for its teaching of heliocentrism, and in 1850 (15 years after the 1835 Index) the Church commissioned Marino Marini, the Prefect of the Vatican Secret Archives, to write an updated apologetic work on the Galileo affair, which was published by the Sacred Congregation for the Propagation of the Faith in Rome under the title: "Galileo el 'Inquisizione." Marini stated that the Catholic Church had saved Europe from heresy and that the Inquisition's punishment of Galileo, which did not include torture, was mild compared to what Protestant churches and state courts were known to do against rebels. Marini concluded that the Inquisition handled the trial of Galileo in "justice, wisdom and moderation," and that "we must affirm that perhaps there has never been a judicial action as just and as wise as this one." It must also be said that Indexes, per se, do not have the authority to overturn results of canonical trials, but it is clear from the historical record that Galileo and heliocentrism were condemned under the auspices of a canonical trial in 1633 by Pope Urban VIII.

These unfortunate events, more than any others, started many clerics down the road to an unofficial and tacit acceptance of heliocentrism, yet they did so without any scientific proof and without addressing the decrees from the canonical trial of 1633.

As for what is "dangerous" about heliocentrism, nothing, *per se*. God could have created the universe with the earth rotating and revolving if He wanted to, and if He did we would honor that system. Heliocentrism becomes "dangerous" if it is being propped up as the true system when, in fact, it is a false system. False information leads to false ideas, and false ideas lead to illicit and immoral actions – thus the state of the world today. It just so happens that heliocentrism has been employed since the time of Galileo as proof that the Church makes mistakes in doctrine and, since that is the case, it must then be made

subservient to political governments and modern academia. Prior to Galileo, the Church was in full command of the world; and governments and academia were subservient to her.

Manya: 2) On that subject, do you believe in the Genesis account of creation or evolution? Do the two (creation and geocentrism) go hand in hand?

R. Sungenis: Don't take this wrong, but it doesn't matter whether I believe it. It only matters what the Church has taught in its tradition and concilar and papal decrees. I'm just the messenger boy, so to speak. Traditionally, the Church has always held to geocentrism and creation. The Church Fathers were in unanimous consent on both, as were the medieval theologians, even in the face of the Greek philosophers and Indian astronomers who were touting both evolution and heliocentrism. The Catechism of the Council of Trent issued under Pope Pius V in 1566 endorsed geocentrism in four separate places. The Fourth Lateran Council in 1215 stated, in an infallible dogma, that creation, not evolution, was the Church's belief ("God...by His own omnipotent power at once from the beginning of time, created each creature from nothing, spiritual and corporal, namely, angelic and mundane, and finally the human" Denz. 428), as did Vatican Council 1 in 1870 ("If anyone does not confess that the world and all things which are contained in it, both spiritual and material, as regards their whole substance, have been created by God from nothing...let him be anathema" Denz. 1805), eleven years after Darwin published his famous Origin of Species touting evolution. Genesis is very clear, at least if read at face value (which is the traditional way of reading it), that the earth was made first and everything in the universe was built around it. The modern Big Bang theory says the opposite, that is, an explosion came first and the earth appeared by chance about 8 billion years later. Both cannot be right.

Manya: 3) Could you please cite the verses of Scripture that support geocentrism?

R. Sungenis: The following are the verses that the Church has used and have been understood to teach geocentrism, either explicitly or implicitly; directly or indirectly. They are all exegeted in detail in our book, *Galileo Was Wrong: The Church Was Right*, Vol. 2, pp. 51-85:

Joshua 10:10-14; Ecclesiasticus (Sirach) 46:3-5; Habakkuk 3:11; 2Kings 20:9-12; 2Chronicles 32:31; Isaiah 38:7-8; Psalm 8:3-6; Psalm 19:1-6; 1Chronicles 16:30; Psalm 93:1-2; Psalm 96:9-11; Psalm 75:2-4; Psalm 104:5,19; Psalm 119:89-91; Ecclesiastes 1:4-7; Ecclesiasticus (Sirach) 43:1-10; Job 9:6-10; Job 22:13-14; Job 26:7-9; Job 26:7-9; Job 26:10-11; Proverbs 8:27-30; Wisdom 7:15-22; 1Esdras 4:34 (apoc.); Job 38:12-18

The most historically significant of these in the Church's case against Galileo is Joshua 10:12-14:

12 On this day, when the Lord delivered up the Amorites to the Israelites, Joshua prayed to the Lord, and said in the presence of Israel: Stand still, O sun, at Gibeon, O moon, in the valley of Aijalon!

13 And the sun stood still, and the moon stayed, while the nation took vengeance on its foes. Is this not recorded in the Book of Jashar? The sun halted in the middle of the sky; not for a whole day did it resume its swift course.

14 Never before or since was there a day like this, when the Lord obeyed the voice of a man; for the Lord fought for Israel. (New American Bible, Catholic, 1972).

The significance is that it would be very difficult to interpret this passage as a figurative account, since the numerous historical details speak against such a perspective. It would be difficult to do so even on a practical level since Joshua commands that both the moon and the sun stop their movements. If only the sun were commanded to stop, someone could, perhaps, argue that the passage was only figurative. But since the moon, which even the heliocentrist accepts as revolving around the earth, was also commanded to stop its movement, then the passage is weighted toward the understanding that both the sun and moon were revolving around the earth; and the consequent fact that both could not be stopped if the earth ceased rotating (for in that scenario, only the sun would appear to stop, but the moon would keep moving). Galileo, of course, had his own peculiar interpretation of Joshua 10:12-14 which St. Robert Bellarmine and Pope Paul V promptly rejected.

Manya: 4) James explained that many people criticize geocentrism as ridiculous. Why do you think that is?

R. Sungenis: Because if you have been taught since early childhood, day in and day out, that the earth rotates on an axis and revolves around the sun, you would naturally think it a ridiculous idea if someone told you the opposite. We assume, without question, that the scientists who told us the earth rotates and revolves are correct. As such, one would be foolish not to think geocentrism was ridiculous. I completely sympathize with their predicament. One cannot even begin to see the other side of the story until he is given the right information to make an intelligent decision. We provide this information in our book, and will do so also at our conference.

Manya: 5) James said the pope was wrong to issue an apology for the way the church treated Galileo. Do you agree? Why do you think Galileo promoted an alternative structure to the universe?

R. Sungenis: Again, although I respect James, his opinions (whether I agree with them or not) do not speak for the conference or for me. That being said, the fact is, Pope John Paul II did not issue a formal apology for the way the Church treated Galileo. You will not find the word "apology" or anything similar in John Paul II's 1992 speech to the Pontifical Academy of Science. In fact, the speech said that both parties could be faulted for indiscretions. According to the most qualified historians who are authorities on the Galileo issue (e.g., McMullin, Finnocchiaro, et al.) the most that can be attributed to John Paul II's 1992 speech is that the whole ordeal between Galileo and the Church was a big "misunderstanding." (We cite these historians in our book). Not surprisingly, the world's newspapers gave a biased interpretation of John Paul's slight concessions and turned them into explicit evidence that the medieval Church was in error and that Galileo was correct. That particular position was not admitted by John Paul II, although I can imagine why some think he conceded. In any case, the papal speech of 1992 was only a private affair between John Paul II and the Pontifical Academy of Science and in no way should be misconstrued as official Catholic doctrine. The fact remains that, except for the lifting of Copernicus and Galileo from the 1835 Index (which was made under false information), the 1616 and 1633 condemnation and trial against Galileo and heliocentrism has never been officially overturned or rescinded, in any manner, and thus remains in force to this very day.

Manya: 6) Why are you on a mission to promote geocentrism?

R. Sungenis: Because I am on a mission to reveal the truth to the world, the Gospel, for Jesus said that "the truth will set you free." No greater love do I have than for the truth, whether it be religious or scientific. After reading the leading lights in cosmology for the past dozen years (e.g., Einstein, Hawking, Sagan, Ellis, Hubble, et al.), I have learned they all admit in their writings that the cosmological evidence clearly shows the earth is motionless in the center of the universe, but they also admit that their secular philosophy and anti-religious convictions force them to suppress this evidence. For example, when Edwin

Hubble (from whose name we dubbed the Hubble Space Telescope) saw in his telescope that the earth was in the center of the universe, he rejected it with these emotional words: "Such a condition would imply that we occupy a unique position in the universe, analogous, in a sense, to the ancient conception of a central Earth....This hypothesis cannot be disproved, but it is unwelcome and would only be accepted as a last resort in order to save the phenomena. Therefore we disregard this possibility...the unwelcome position of a favored location must be avoided at all costs... such a favored position is intolerable..." (The Observational Approach to Cosmology, 1937, pp. 50, 51, 58-59). Reading between the lines, we can surmise that the main reason Hubble and men like him want to suppress these facts is they know instinctively that if the earth is motionless in the center of the universe this could not happen by chance. Someone had to place it there, which invariably brings them right to the throne of God to Whom they are accountable for their lives. Putting the earth in the remote recesses of space and pretending that it got there by chance convinces them, at least for the moment, that God doesn't exist. We only need cite Stephen Hawking's remark last week, stating that he is of the conviction that God wasn't necessary to create the universe. As we demonstrate in our book by quoting Hawking, he admits that the cosmological evidence shows the earth is in the center of the universe, but he then feigns humility and says that this honored position is not worthy of the human race, and convinces himself that he must find some other scientific explanation to convince people the earth is not in the center, and this has been his life's mission. Conversely, my life's mission is to expose this hypocrisy and lead people back to God, the God who, according to the Catholic Church's time-honored tradition, made the earth out of nothing and put it in the center of the universe so that men would give Him the honor and obedience He is due.

Manya: 7) Belief in the Genesis account of creation has seen a renewal in recent years. Why do you think that is? Do you hope or believe the same will happen with geocentrism?

R. Sungenis: The renewal is due, in part, to the efforts of Christians who boldly entered the scientific domain that was previously dominated by secularists. These Christian scientists showed that the cosmogony and cosmology of modern science is without scientific foundation or even good evidence. Ever since Morris and Whitcomb wrote *The Genesis Flood* in the 1960s, Christians have been on a march to discover and demonstrate the scientific evidence against evolution. It also helps when the secular evolutionists come to our aid by admitting the same lack of proof, as was the case, for example, when the leading evolutionists, Stephen Gould and Niles Eldredge, admitted to a packed house of the world's scientists in Chicago in 1972 that the search for the "missing link" and other intermediate fossils was a total failure, since after almost a hundred years of searching modern science was not able to find even one.

Yes, I do feel the same thing will happen to geocentrism as has happened for creationism. We are where Morris and Whitcomb were in the 1960s. Sooner or later the evidence for

geocentrism is going to be widespread, but it takes time. I may be dead and gone before my dream is ever realized. The case for geocentrism may, however, go a little faster than it has for creationism, since the case for geocentrism is so much easier to demonstrate than creationism. I can explain the scientific evidence for geocentrism in about 20 minutes to a qualified listener, and after I'm done he will either walk away absolutely amazed at the new truth he just discovered or he will do everything in his power to suppress and ridicule what I just told him and call me a lunatic for even broaching the subject, since he realizes, but rejects, the theological and global implications of what I am saying. It all depends on the person and his personal agenda and belief system.

Manya: 8) How many people are attending this conference in South Bend? Anyone from Notre Dame?

R. Sungenis: We have six weeks to the conference, but so far we are close to 75 attendees. Last week we had a flurry of phone calls and emails as well as over 130,000 hits on our website in just two days, since the word got out on Twitter that we were having the conference. So I expect more people will come. The conference will be recorded on video and audio for those who cannot come. Our limit is 125 attendees at this point. As regards Notre Dame, yes, we have almost two dozen students and a few faculty coming to the event. All students and clergy are admitted free and will receive a copy of our recently published book, *Galileo Was Wrong: The Church Was Right: A Synopsis*, which is a 100-page summary of the main arguments in the two volume work of over 1100 pages.

Manya: Many thanks.

R. Sungenis: My pleasure. May God be with you.

Cosmological Evidence Shows Central and Non-Moving Earth

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Using the simplest interpretation of the current cosmological evidence concerning galactic redshift; the anisotropy of the CMB; gamma-ray and X-ray bursts; and quasar distribution, as provided by the 2005 Sloan Digital Sky Survey; the 2001 Wilkinson Microwave Anisotropy Probe and other such studies, show that the Earth is at or very near the center of the universe and that alternative interpretations advancing homogeneity and the LCDM universe (e.g., "the center is everywhere and nowhere due to an expanding universe") are contradicted by the di- quad- and octu-pole outcomes of the CMB; the large void area at the observation point; and the consistent concentric and quantized z-factor of the redshift around the observation point. Further evidence from the Michelson-Morley and Sagnac- type experiments from 1881 through 1932, as well as post-1932 maser and laser interferometry, including the Sagnac-based pre-programming for the Global Positioning Satellites, show that some type of ponderable ether exists, which is in principle agreement with Quantum Mechanics but opposed to Special Relativity. It is postulated that interpretations of the historic interferometer experiments that were said to yield a "null" result were simply the result of presuming, without proof, that the Earth was translating at 30km/sec around the sun, which leads to the conclusion that Special Relativity was invented precisely to avoid having to answer the Michelson-Morley experiment by admitting to a motionless Earth. In actuality, none of the interferometer experiments showed a "null" result, and as such they give convincing evidence of an ether drift that can be easily accounted for within the margin of an ether-universe rotating around a nonrotating and non-translating Earth.

1.Introduction

Evidence for a centrally located and non-moving earth, which requires that the universe itself rotates around a fixed earth, has gained substantial evidence in the past century or so. The fixed earth was known from the ostensible evidence gathered from the **George Airy** telescopes and the **Michelson-Morley** interferometer experiments but rejected by modern science in favor of Special Relativity over one hundred years ago. Evidence for a centrally located earth has been known since the time of Hubble, and increased in the 1970s with **Tifft, Guthrie, Napier, Burbidge, Kook,** and **Krone's** studies of periodic distribution of red shifts in the 36km/sec range (e.g., "Evidence for Quantized and Variable Redshifts in the Cosmic Background Rest Frame," W. G. Tifft, Steward Observatory, 1996); followed by subsequent red shift studies showing earth at or very near the center of the distribution (John G. Hartnett & Koichi Hirano, *Astrophysics and Space Science* **318**: 13, 2008). Evidence has reached critical mass with the results of the 2001 WMAP and 2005 SDSS.

2. The Centrally Located Earth

Edwin Hubble was the first to see the centrally located earth. In his 1937 book The Observational Approach to Cosmology, he expresses his deepest concerns about the fact that the red shift of galaxies was isotropic in whatever direction of the sky he looked, concluding: "...Such a condition would imply that we occupy a unique position in the

universe, analogous, in a sense, to the ancient conception of a central Earth... This hypothesis cannot be disproved, but it is unwelcome and would only be accepted as a last resort in order to save the phenomena. Therefore we disregard this possibility... the unwelcome position of a favored location must be avoided at all costs... such a favored position is intolerable... Therefore, in order to restore homogeneity, and to escape the horror of a unique position... must be compensated by spatial curvature. There seems to be no other escape." [1]

Modern cosmology has tried to explain this phenomenon using the Friedmann-Lemaitre-Robertson-Walker (FLRW) model of Einstein's "spatial curvature" equations $[G_{\mu\nu} = 8\pi T_{\mu\nu}]$ to produce a non-Euclidean universe that is expanding as if on the surface of a balloon. As such, all the galaxies will appear to expand away from each other so that no single point could be designated the center of the expansion. But as **Stephen Hawking** has admitted, the FLRW model has no evidence in its favor; rather, cosmologists choose it merely to preserve the Copernican principle. He writes: "...the universe might look the same in every direction as seen from any other galaxy, too. This, as we have seen, was Friedmann's second assumption. We have no scientific evidence for, or against, this assumption. We believe it only on grounds of modesty." [2] His co-author in another book, George F. R. Ellis admits much the same: "This assumption is made because it is believed to be unreasonable that we should be near the center of the Universe." [3] Hawking admits that the evidence could just as well point to a central earth: "...all this evidence that the universe looks the same whichever direction we look in might seem to suggest there is something special about our place in the universe. In particular, it might seem that if we observe all other galaxies to be moving away from us, then we must be at the center of the universe."

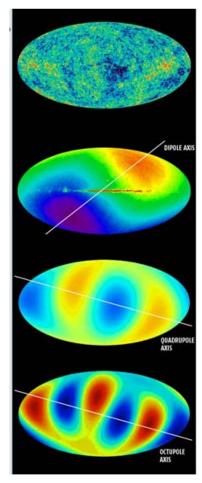


Fig. 1. Axis of Evil.

Regarding the "Friedman" option, a recent paper by **Yukio Tomazawa** asserts it is no longer an option: "In the Friedman universe, one possible interpretation of the coordinates is that the whole space is on the surface of an expanding balloon and has no center... [But] in such a 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." [4] In another paper, Tomozawa writes: "The validity of Hubble's law defies the determination of the center of the big bang expansion, even if it exists. Every point in the expanding universe looks like the center from which the rest of the universe flies away. In this article, the author shows that the distribution of apparently circular galaxies is not uniform in the sky and that there exists a special direction in the universe in our neighborhood. The data is consistent with the assumption that the tidal force due to the mass distribution around the universe center causes the deformation of galactic shapes depending on its orientation and location relative to the center and our galaxy." [5] Although Tomozawa's center of the universe is about 22.8 Mpc from Earth, it is within 99.97% of Earth in the exact center of the universe when compared to the modern consensus for the size of the universe of 93 billion light years in diameter.

George F. R. Ellis recently added that the Copernican bias that currently reigns in cosmology is not true and unbiased science: "Additionally, we must take seriously the idea that the acceleration apparently indicated by supernova data could be due to large scale inhomogeneity with no dark energy. Observational tests of the latter possibility are as important as pursuing the dark energy (exotic physics) option in a homogeneous universe. Theoretical prejudices as to the universe's geometry, and our place in it, must bow to such observational tests. Precisely because of the foundational nature of the Copernican Principle for standard cosmology, we need to fully check this foundation. And one must emphasize here that standard CMB anisotropy studies do not prove the Copernican principle: they assume it at the start." [6] Ellis has had a long history of promoting the geocentric universe. He had once shaken the halls of modern science with what other scientists said was "an earthquake that made Copernicus turn in his grave." In a lengthy article in New Scientist in 1978, Ellis' own General Relativity theory forced him to conclude that our galaxy is located near one of "two centers" in the universe that are in an antipodal relation [7]. Although Ellis allows that his observations and calculations may be the result of a wrong interpretation, no one has since discovered any such errors, including Ellis. In fact, the then editor of Nature, Paul C. W. Davies, admitted that Ellis' theory did not contain any logical errors and that in every aspect seems to be in agreement with observed facts. Under the article title "Cosmic Heresy," Davies writes: "Often the simplest of observations will have the most profound consequences. It has long been a cornerstone of modern science, to say nothing of man's cosmic outlook, that the Earth attends a modest star that shines in an undistinguished part of a run-of-the-mill galaxy. Life arose spontaneously and man evolved on this miscellaneous clump of matter and now directs his own destiny without outside help. This cosmic model is supported by the Big-Bang and Expanding Universe concepts, which in turn are buttressed by the simple observation that astronomers see redshifts wherever they look. These redshifts are due, of course, to matter flying away from us under the impetus of the Big Bang. But redshifts can also arise from the gravitational attraction of mass. If the Earth were at the center of the universe, the attraction of the surrounding mass of stars would also produce redshifts wherever we looked! The argument advanced by George Ellis in this article is more complex than this, but his basic thrust is to put man back into a favored position in the cosmos. His new theory seems quite consistent with our astronomical observations, even though it clashes with the thought that we are godless and making it on our own." [8]

Similarly, **Craig Copi**, *et al*, have stated: "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... At the very least, probes of the large-angle (low-*l*) properties of the CMB reveal that we do not live in a typical realization of the concordance model of inflationary LCDM." [9] Interestingly enough, in regards to the anisotropy of the CMB, recent studies show that the dipole, quadrupole and octupole heat distribution of the CMB aligns precisely with our ecliptic and equinoxes, a truly fascinating and heretofore unknown phenomenon. (See diagram below in which the dipole lines up with our equinoxes and the orientations of the heat distribution would be random, but it is obviously anything but random. So shocking are these results that cosmologists have dubbed it "**The Axis of Evil**" since it neutralizes the Copernican and cosmological principles upon which the LCDM (lambda plus cold dark matter) universe or Big Bang rests.

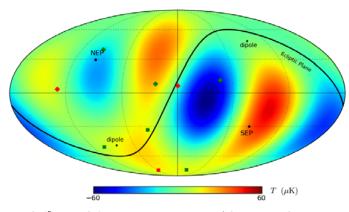


Fig. 2. Quadrupole and octupole ($\ell = 2$ and 3) temperature anistropy of the WMAP sky map in galactic coordinates, shown with the ecliptic plane and the cosmological dipole. Included ar the multipole vectors (solid diamonds); two for the quadrupole (red diamonds) and three for the octupole (green diamonds). We also show the four normals (solid squares) to the planes defined by vectors that describe the quadrupole and octupole temperatures anisotropy; one normal is defined by the quadrupole (red square) and three by the octupole (green squares). Note that three out of four normals lie very close to the dipole direction. The probability of this alignment being accidental is about one in a thousand. Moreover, the ecliptic plane traces out a locus of zero of the combined quadrupole and octupole over a broad swath of the sky – neatly separating a hot spot in the northern sky from a cold spot in the south. These apparent correlations with the solar system geometry are puzzling and currently unexplained.

Lawrence Krauss of Arizona State University has been very candid about the implications of these studies: "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." [10] That there may be any kind of statistical fluke or foreground contamination producing these shocking results has been discounted on the order of 99.9% [11]. When Krauss commented in USA Today on a paper written by **Temple & Smoller** that demonstrate equations that make dark energy superfluous, he 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." [12]

In a recent publication, the team of **Dominik Schwarz, Glenn Starkman**, et al., discovered that: "The large-angle correlations of the cosmic microwave background exhibit several statistically significant anomalies compared to the standard inflationary cosmology... the quadrupole-octopole correlation is excluded from being a chance occurrence in a gaussian random statistically isotropic sky at > 99.87%... The correlation of the normals with the ecliptic poles suggest an unknown source or sink of CMB radiation or an unrecognized systematic. If it is a physical source or sink in the inner solar system it would cause an annual modulation in the time-ordered data... Physical correlation of the CMB with the equinoxes is difficult to imagine, since the WMAP satellite has no knowledge of the inclination of the Earth's spin axis." [13] In a related article in Scientific American, Schwarz and Starkman essentially say the same thing, but with a few more details. Comparing the CMB fluctuations to the sounds of an orchestra, they find that "Certain of those harmonics are playing more quietly than they should be ... These bum notes mean that the otherwise very successful standard model of cosmology [the Big Bang] is flawed - or that something is amiss with the data." [14] Toward the end of the article Schwarz and Starkman more or less discount that something is wrong with the data, leaving the Big Bang theory itself as the culprit: "Yet the WMAP team has been exceedingly careful and has done numerous cross-checks of its instruments and its analysis procedure. It is difficult to see how spurious correlations could accidentally be introduced. Moreover, we have found similar correlations in the map produced by the COBE satellite....The results could send us back to the drawing board about the early universe." Schwarz and Starkman then refer to the study of **Tegmark and Oliveira-Costa** noting that the "preferred axes of the quadrupole modes...and the octopole modes... were remarkably closely aligned" and they add the study of Hans Kristian Eriksen in 2003 at the University of Oslo, citing that: "What they found contradicted the standard inflationary cosmology - the hemispheres often had very different amounts of power. But what was most surprising was that the pair of hemispheres that were the most different were the ones lying above and below the ecliptic, the plane of the earth's orbit around the sun. This result was the first sign that the CMB fluctuations, which were supposed to be cosmological in origin...have a solar system signal in them – that is, a type of observational artifact." Max Tegmark, head of the 2001 WMAP team, stated the findings rather bluntly: "Our entire observable universe is inside this sphere of radius 13.3 billion light-years, with us at the center,"[15] and provided Fig. 3. In a recent email to a colleague of mine, Tegmark was asked if the CMB map he provided could be used to illustrate a geocentric universe. Tegmark replied: "I don't think they don't point toward a geocentric universe," offering a paper he wrote with his wife Angélica de Oliveira-Costa as evidence for the possibility of geocentrism http://arxiv.org/abs/astro-ph/0307282 (email, dated May 2, 2011, on file with me).

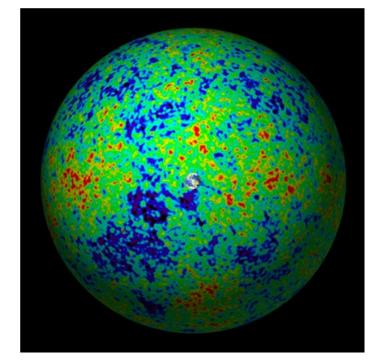


Fig. 3. Universe's CMB Aligned with Earth at Center.

Tegmark continues: "Space continues outside the sphere but this opaque glowing wall of hydrogen plasma hides it from our view. If we could only see another 380,000 light-years we would be able to see the beginning of the Universe....We found something very bizarre; there is some extra, so far unexplained structure in the CMB. We had expected that the microwave background would be truly isotropic, with no preferred direction in space but that may not be the case. Looking at the symmetry of the CMB - measures technically called its octopole and quadrupole components - the researchers uncovered a curious pattern. They had expected to see no pattern at all but what they saw was anything but random. The octopole and quadrupole components are arranged in a straight line across the sky, along a kind of cosmic equator. That's weird. We don't think this is due to foreground contamination. It could be telling us something about the shape of space on the largest scales. We did not expect this and we cannot yet explain it." [16] A viable explanation of this data is that the low multipoles for $\ell < 4$ is that the universe is finite and no bigger than the CMB sky. Additionally, the CMB's physical alignment of the quadrupole and octupole with our ecliptic; and the physical alignment of the dipole axis (which is orthogonal to the quadrupole and octupole) with our equinoxes, means the Earth must be at or very near the center of the CMB, otherwise we would not be able to see these alignments. It is as if our particular locale has been imprinted on the CMB; as if the CMB originated from us. Standard cosmology, however, seeks an alternative that has the dipole formed by the movement of the solar system through a fixed CMB, which then makes the dipole insignificant and thus ignored.

Previous to this, cosmology was trapped on the other side of the coin. **Joseph Silk** of the University of California (Berkeley) stated several years ago: "Studies of the cosmic background radiation have confirmed the isotropy of the radiation, or its complete uniformity in all directions. If the universe possesses a center, we must be very close to it... otherwise, excessive observable anisotropy in the radiation intensity would be produced, and we would detect more radiation from one direction than from the opposite direction." [17] Either way current cosmology is trapped. If we

follow these results to their logical conclusion, then we must admit that the CMB is aligned with our ecliptic and equinoxes, which means that the Earth is in the virtual center of the universe and also that cold dark matter is obsolete. Timothy Clifton of Oxford puts it thus: "A fundamental presupposition of modern cosmology is the Copernican Principle, that we are not in a central, or otherwise special region of the Universe. Studies of Type Ia supernovae, together with the Copernican principle, have led to the inference that the Universe is accelerating in its expansion. The usual explanation for this is that there must exist a 'Dark Energy,' to drive the acceleration. Alternatively, it could be the case that the Copernican Principle is invalid, and that the data has been interpreted within an inappropriate theoretical framework. If we were to live in a special place in the Universe, near the centre of a void where the local matter density is low, then the supernovae observations would be accounted for without the addition of dark energy." [18]

3. Quantized Galaxy Distribution around the Void

Expanding on the work of Tifft, *et al*, regarding periodicities in red shift values, recent papers by John Hartnett and Koichi Hirano have shown that the periodicities are anchored around a void area having earth at or near the center of the void.

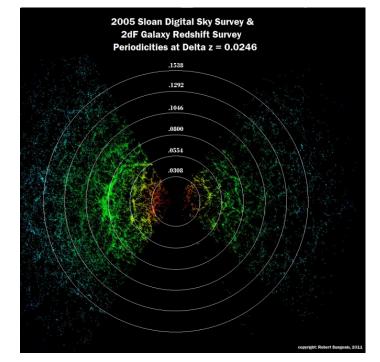


Fig. 4. Galaxy Distribution Showing Earth in Center of the Void.

The void area is approximately 60Mpc in diameter and is the only known under density of galaxy population in the observable universe. Hartnett has shown from the Sloan Digital Sky Survey (SDSS) and the 2dF Galaxy Redshift Survey that galaxies are situated in concentric circles around the void area. Hartnett's analysis shows that the center point for the concentric alignment is 26Mpc from earth, which in terms of the estimated size of the universe, puts the Earth within 97.98% of the exact center.[19] In another paper, Hirano refers to the above evidence and describes it as devastating to the Copernican principle: "A widespread idea in cosmology is that the universe is homogeneous and isotropic above a certain scale. This hypothesis, usually called the cosmological principle is thought to be a generalization of the Copernican principle that 'the Earth is not in a central, specially favored position' [reference to P. J. E. Peebles, **Principles of Physical Cosmology**, 1993]. The assumption is that any observer at any place at the same epoch would see essentially the same picture of the large scale distribution of galaxies in the universe. However, according to a Fourier analysis by Hartnett and Hirano, the galaxy number count *N* from redshift *z* data indicates that galaxies have preferred periodic redshift spacings of $\Delta z = 0.0102$, 0.0246, 0.0448 in the Sloan Digital Sky Survey with similar results from the 2dF Galaxy Redshift Survey..." [20]

4. Periodic Distribution of Quasars

As early as 1975, right around the same time Tifft, *et al*, were finding periodicities in galaxy redshift, **Y. P. Varshni** was finding the same with quasar distribution. In 1975 he catalogued 384 quasars between redshift of 0.2 and 3.53 and found that they were formed in 57 separate groupings of concentric spheres around the Earth. He made the following startling conclusion: "the quasars in the 57 groups...are arranged on 57 spherical shells with the Earth as the center....The cosmological interpretation of the redshift in the spectra of quasars leads to yet another paradoxical result: namely, that the Earth is the center of the universe." Varshni first based his calculations on the spectra of the quasars and then did a second test on their actual redshifts.

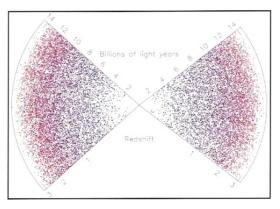


Fig. 5. Quasars. The density of quasars increases outwards from the Earth. In this plot the Earth is at the center, in the nearly blank area. The density of quasars decreases after about 11 billion l.y. into the 'dark ages' before they had formed.

Both tests produced the same results. Varshni concludes that if his analysis is correct for quasars, then... "The Earth is indeed the center of the Universe. The arrangement of quasars on certain spherical shells is only with respect to the Earth. These shells would disappear if viewed from another galaxy or quasar. This means that the cosmological principle will have to go. Also it implies that a coordinate system fixed to the Earth will be a preferred frame of reference in the Universe. Consequently, both the Special and General Theory of Relativity must be abandoned for cosmological purposes."[21] Varshni calculated the odds against such an arrangement and found: "From the multiplicative law...the probability of these 57 sets of coincidences occurring in this system of 384 QSOs is \approx 3 × 10⁻⁸⁵. We hope this number will be convincing evidence that the coincidences are real and cannot be attributed to chance." Since Varshi's pioneering efforts, more targeted studies have been done on quasars with close to the same results. Varshni found the same "void area" at the center that current SDSS finds for galaxies. Recent studies from the SDSS DR6 release show that Varshni's original findings have been comfirmed. John Hartnett writes: "Fourier spectral analysis... finds that there are preferred redshifts separated by intervals of $\Delta z = 0.258$, 0.312, 0.44, 0.63 and 1.1," although Hartnett, siding with Arp, cautions that there may be some "unknown selection effect" simulating the periodicity.[22] Likewise, Bell and Comeau have also commented on selection effects.[23] In an earlier paper, Bell and McDiaramid analyzed 46,000 SDSS guasar redshifts and found a "distinct power peak" of which "the locations of the peaks in the redshift distribution are in agreement with the preferred redshifts predicted by the intrinsic redshift equation....We conclude that it is real..." [24] In the end, Varshni's original findings have not been overturned.

5. Periodicities in Gamma Ray Bursts

The recent book, **The Biggest Bangs: The Mystery of Gamma-Ray Bursts, the Most Violent Explosions in the Universe**, written by astrophysicist **Jonathan Katz** of Washington University, includes a chapter titled "The Copernican Dilemma." Katz's studies have found that, when all the known gamma-ray bursts are calculated and catalogued, they show Earth to be in the center of it all. He writes: "The uniform distribution of burst arrival directions tells us that the distribution of gamma-ray-burst sources in space is a sphere or spherical shell, with us at the center (some other extremely contrived and implausible distributions are also possible). But Copernicus taught us that we are not in a special preferred position in the universe; Earth is not at the center of the solar system, the Sun is not at the center of the galaxy, and so forth. There is no reason to believe we are at the center of the distribution of gamma-ray bursts. If our instruments are sensitive enough to detect bursts at the edge of the spatial distribution, then they should not be isotropic on the sky, contrary to observation; if our instruments are less sensitive, then the N \propto S

^{3/2} law should hold, also contrary to observation. That is the Copernican dilemma. To this day, after the detection of several thousand bursts, and despite earnest efforts to show the contrary, no deviation from a uniform random distribution (isotropy) in the directions of gamma-ray bursts on the sky has ever been convincingly demonstrated." [25] A recent article in *Sky and Telescope* supports this interpretation: "'There's this myth that gamma-ray bursts are chaotic and unpredictable…but that's not true.' In fact GRB's might even be used as 'standard candles' with which to measure cosmic distances." [26] In a paper by **Yana Tikhomirova**, *et al*, in which the sample consists of 3906 GRBs which includes non-triggered bursts with peak fluxes down to 0.1 photons cm-² s-¹, the authors state they "find no significant deviations from isotropy," [27] which means that Katz's results were confirmed.

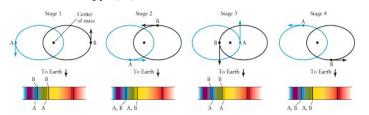


Fig. 6. Varying Spectrums of Binary Stars.

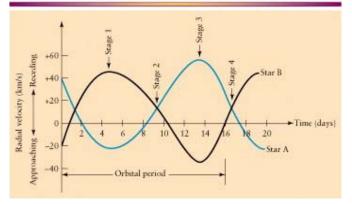


Fig. 7. Orbital Period of Binary Stars.

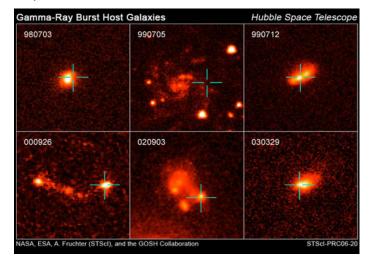


Fig. 8. Typical Gamma Ray Burster Activity.

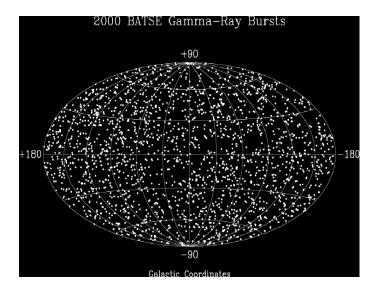


Fig. 9. Isotropic Distribution of GRB's Around Earth

6. Spectroscopic Binaries

The earth-centered periodicities have also been found with spectroscopic binaries. The orbital axes of binaries are situated with respect to the Earth. Since binary stars are seen over the 360 degrees of visual space, this means that the axis of each binary system is pointing toward the Earth as if the Earth were the center of a giant merry-go-round and the axes were arrows. Without admitting to any possibility that the binaries show Earth is in the center of the universe, astronomers instead prefer to attach innocuous names to such phenomena, this particular one being called the "Barr effect," after the astronomer J. M. Barr. Barr's original study found that of the 30 spectroscopic binaries he analyzed, 26 had longitudes of periastron between 0 and 180 degrees, which means that they were oriented toward Earth as their center.

7. Globular Clusters

Lastly, we have evidence from globular clusters, which are conglomerations of thousands of loosely fitting stars. They form a spherical distribution around our nearest stars, and effectively, around the Earth. Dewey Larson writes: "The distribution of [globular] clusters around the Galaxy is nearly spherical, and there is no evidence that the cluster system participates to any substantial degree in galactic rotation....We see the globular clusters as a roughly spherical halo....The cluster concentration gradually decreases until it reaches the cluster density of intergalactic space." [28] Astronomers Victor Clube and William Napier found the same evidence, showing that globular clusters, while being independent of the galaxy in that they do not participate in the rotation of the same, show a radial dispersion from the center of the galaxy and conclude that "It is extremely difficult to explain these observations by any other kind of model." [29]

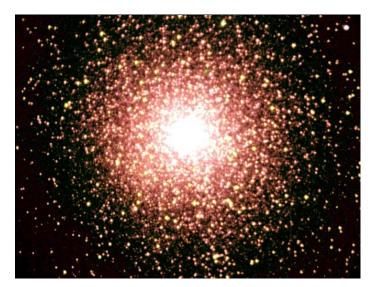


Fig. 10. Typical Globular Cluster of Stars.

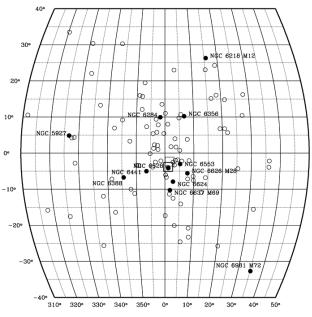


Fig. 11. Non-Random Distribution of Globular Clusters.

8. The Motionless Earth

Ultimately, the one man to whom we can point who is behind all the attempts to preserve the Copernican and cosmological principles is Albert Einstein. Similar to Edwin Hubble who stated that an Earth-centered cosmos would be "intolerable" and "must be avoided at all costs," so Einstein gave birth to Relativity for precisely the same reason, only his biographer chose the word "unthinkable." After the famous Michelson-Morley experiment (MMX) of 1887, Ronald W. Clark describes what came next: "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. The second was that the ether was carried along by the earth in its passage through space...The third solution was that the ether simply did not exist, which to many nineteenth century scientists was equivalent to scrapping current views of light, electricity, and magnetism, and starting again." [30] The reason for these ultimatums was that the MMX didn't measure an ether drift commensurate with an Earth revolving around the sun at 30kms; so one logical solution was that the Earth wasn't moving. That a non-moving Earth was a

viable consideration is noted in the comments from the top physicists of that day, including Michelson. Einstein: "I have come to believe that the motion of the Earth cannot be detected by any optical experiment." [31] Lorentz: "Briefly, everything occurs as if the Earth were at rest..." [32] Eddington: "There was just one alternative; the earth's true velocity through space might happen to have been nil" [33] Pauli: "The failure of the many attempts to measure terrestrially any effects of the earth's motion ... " [34] Poincare: "We do not have and cannot have any means of discovering whether or not we are carried along in a uniform motion of translation." [35] "A great deal of research has been carried out concerning the influence of the Earth's movement. The results were always negative" [36] Michelson: "This conclusion directly contradicts the explanation of the phenomenon of aberration which has been hitherto generally accepted, and which presupposes that the Earth moves."[37] Jaffe: "The data were almost unbelievable... There was only one other possible conclusion to draw – that the Earth was at rest" [38]; Adolf Baker: "Always the speed of light was precisely the same...Thus, failure [of Michelson-Morley] to observe different speeds of light at different times of the year suggested that the Earth must be 'at rest'...It was therefore the 'preferred' frame for measuring absolute motion in space. Yet we have known since Galileo that the Earth is not the center of the universe. Why should it be at rest in space?" [39] Barnett: "...nor has any physical experiment ever proved that the Earth actually is in motion." [40] Lorentz had proposed that the instruments used to measure the ether drift shrunk when moving with the Earth through the ether, thus making it appear as if the Earth wasn't moving. Einstein came up with the "third solution" and posited that ether doesn't exist. If the ether is eliminated, then the results of the MMX could be explained by saying that time changes (or warps) when an object (such as the Earth) moves in space. Both Lorentz and Einstein used the factor $\sqrt{1-v^2/c^2}$ to account for shrinking or warping, respectively, which then led Einstein to the whole concept of "space-time" and the rudiments of Special Relativity theory.

9. Michelson-Morley Measured Ether Drift

Since Einstein chose as his foundation that the Earth was translating around the sun at 30kms and thus postulated the ether did not exist, the results of MMX were considered "null" and all subsequent theorizing, including Special and General Relativity, was built on the assumption that the Earth was moving. Thus, Einstein could safely develop his Special Relativity theory with the accepted premise that space was a vacuum that did not possess any ponderable substance (*i.e.*, ether). That Relativity theory was the direct result of MMX was admitted by Einstein in a speech honoring Michelson: "I have come among men who for many years have been true comrades with me in my labors. You, my honored Dr. Michelson, began with this work when I was only a little youngster, hardly three feet high. It was you who led the physicists into new paths, and through your marvelous experimental work paved the way for the development of the Theory of Relativity. You uncovered an insidious defect in the ether theory of light, as it then existed, and stimulated the ideas of H. A. Lorentz and Fitzgerald, out of which the Special Theory of Relativity developed. Without your work this theory would today be scarcely more than an interesting speculation; it was your verifications which first set the theory on a real basis." [41]

The realities of the scientific results, however, are quite different than what was assumed by Einstein and his colleagues. The fact is, the MMX did measure an ether drift. It just didn't measure a drift that would be expected if the Earth were moving around the sun at 30kms; rather, it measured a drift that was less than one-twentieth of 30kms. From his 1887 experiment, Michelson himself states: "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 2×10^7 wavelengths of yellow light; hence, the displacement to be expected was 0.4 fringe. The original equation to determine the significance of the fringe shifts was: $\Delta t - \Delta t' = (l_1 + l_2) v^2/c^3$. Earth is translating at $v = 3.0 \times 10^4$ m/s, the speed of the Earth in its orbit around the Sun. In Michelson and Morley's experiment, the arms l_1 and l_2 were about 11 meters long. The time difference would then be about $(22m)(3.0 \times 10^4 \text{ m/s})^2/(3.0 \times 10^8 \text{ m/s})^3 \approx 7.3 \times 10^{-16} \text{ s}$. For visible light of wavelength $\lambda = 5.5 \times 10^{-7}$ m, say, the frequency would be $f = c/\lambda = (3.0 \times 10^8 \text{ m/s})/(5.5 \times 10^{-7} \text{ m}) = 5.5 \times 10^{14} \text{ Hz}$, which means that wave crests pass by a point every $1/(5.5 \times 10^{14} \text{ Hz}) = 1.8 \times 10^{-15} \text{ s}$. Thus, with a time difference of 7.0×10^{-16} s, Michelson and Morley should have noted a movement in the interference pattern of $(7.3 \times 10^{-16} \text{ s})/(1.8 \times 10^{-16} \text{ s})$ 10^{-15} s) = 0.405 fringe that they should have seen. But they state: "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." [42]

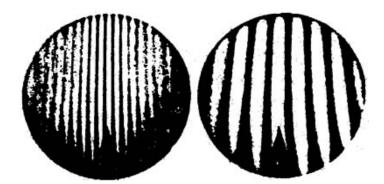


Fig. 12. Typical Ranges of Fringe-Shifting in Interferometry.

Interestingly enough, other scientists who did not like the spookiness of Relativity theory but who had never questioned the Copernican theory, had tried to disprove Einstein's Relativity by showing that there was an ether drift, and all of them were successful, whether the experiments were designed similar to the interferometer of MMX (e.g., Morley-Miller in 1903-1905) or the 1902 refractometer of Rayleigh [43] (*e.g.*, Brace in 1904) [44]; or the electromagnetic plates of Trouton-Noble in 1903 [45]. Regardless, Einstein went ahead and submitted his famous 1905 paper, "On the Electrodynamics of Moving Bodies," which was the beginning of his Special Relativity theory. His opponents knew that something was amiss with Relativity so they continued with their interferometer experiments in order to show that ether was present in space. Subsequent to Einstein's 1905 paper came Georges Sagnac's 1913 interferometer experiment [46]; followed by Kennedy-Thorndike in 1927 [47]; Michelson-Pease-Pearson in 1926-1929 [48]; Michelson-Gale in 1925 [49]; and Dayton Miller's extensive work between 1905 to 1925 [50]. They all showed similar results and all concluded that ether was present in space. Einstein knew that if they were correct then Relativity theory was doomed. He stated: "If Michelson-Morley is wrong, then Relativity is wrong." [51] "I believe that I have really found the relationship between gravitation and electricity, assuming that the Miller experiments are based on a fundamental error. Otherwise the whole relativity theory collapses like a house of cards."[52]

Of course, the scientists who confirmed the ether's existence and nullified Relativity theory didn't know quite what to do with their results since all of them were avowed Copernicans. This is especially noted in the 1925 Michelson-Gale experiment (MGX): "The two beams returning to the original mirror produced interference fringes. The beam traversing the rectangle in a counter-clockwise direction was retarded. The observed displacement of the fringes was found to be $0.230 \pm .005$, agreeing with the computed value $0.236 \pm .002$ within the limits of experimental error." [53] Thus, right before Michelson's own eyes, the 1913 Sagnac results were confirmed as were his 1887 results, and both denied Relativity. Here was further proof, to the order of ten times the power of the Sagnac experiment, that there is, indeed, an absolute space in which absolute rotation occurs. Something was affecting the light in order for it to consistently produce the fringe displacement. Sagnac (1913) and Michelson (1925) demonstrated it was ether, which was quite an irony for the latter. Although Michelson would sum up the experiment with the sardonic comment: "All we can deduce from this experiment is that the earth rotates on its axis," [54] in reality, the experiment did not distinguish between an Earth rotating against the ether as opposed to the ether rotating around a fixed-Earth. In other words, it provided no proof that the Earth rotates, but opened the door very wide to suggest that Copernicus was wrong, since no translational motion corresponding to 30kms was found by Michelson and Gale. Analyzing the results of the Sagnac and Michelson-Gale experiments, Hayden and Whitney, in the revealing title: "If Sagnac, Why Not Michelson-Morley?" write: "The logical existence of the incremental Sagnac effect implies... that there is some compelling physical reason why the effect cannot be observed at the surface of the Earth....We hold that until something new is brought to the table, this question simply cannot be resolved. No currently accepted theory reveals why, like a Cheshire cat, the Sagnac effect shows itself in one kind of experiment but not in another." [55] The authors are certainly correct in concluding, "until something new is brought to the table, this question simply cannot be resolved." The resolution staring them in the face but which has been "unthinkable" since the days of Lorentz and Einstein is that the Earth is not moving. Whereas Sagnac and Michelson-Gale, being themselves Copernicans, were testing for "The Effect of the Earth's Rotation on the Velocity of Light," the interpretation of their results in regard to a geocentric universe is that the Earth is motionless at the center of the universe. There is a slight movement of the ether against "the surface of the Earth" due to the rotation of the universe, which then shows up in miniscule fringe shifts in the interferometer experiments. Accordingly, since the Earth has no translational motion, experiments seeking to detect such motion will always come to a "null" result. The result, as we have seen, is not actually null; rather, all the experiments show a slight positive result (as did the original Michelson-Morley experiment in 1887), but the physicists and astronomers interpreting the results consider them null because they do not produce the expected fringe shifts if the Earth is understood to be moving through the ether by revolving around the sun at 30kms. In other words, if one presupposes a revolving and rotating Earth, the fringe shifts are always too small to account for such double motion. But if we assume a stationary Earth in the center of a rotating universal ether, there will, indeed, be as slight a movement of the ether against Earth as there would be against a ship in the eye of a hurricane. Using Michelson-Morley's original equation, the expected fringe shift for an ether rotating against a fixed Earth is as follows: $\Delta t - \Delta t' = (l_1 + l_2) v^2/c^3$. The Earth is said to rotate as $v = 4.65 \times 10^2 \text{ m/s}$. We thus have: (22m)(4.65 $\times 10^2 \text{ m/s})^2 / (3.0 \times 10^8 \text{ m/s})^3 = 1.76 \times 10^{-19} \text{ s}$. The wave crests pass by at every $1.8 \times 10^{-15} \text{ s}$ which is divided into $1.76 \times 10^{-19} \text{ s}$, equaling $9.7 \times 10^{-5} \text{ s}$ or .00097 fringe to account for a rotating ether around the earth. This is amply demonstrated by all the interferometer experiments in the course of 50 years. Robert Shankland categorized the experiments from Michelson to Joos. [56]. He separates them into "Fringe Shift Expected" (FSE) and "Fringe Shift Measured" (FSM). The results he records are as follows, with my ratios ["r"] supplied in brackets:

1881 Michelson: FSE: 0.04, FSM: 0.02 [r = 50%]1887 Michelson-Morley: FSE: 0.4, FSM: <0.01 [r = 2.5%]1902-04 Morley-Miller: FSE: 1.13, FSM: 0.015 [r = 1.3%]1921 Miller: FSE: 1.12, FSM: 0.08 [r = 7.1%]1923-1924 Miller: FSE: 1.12, FSM: 0.03 [r = 2.6%]1924 Miller (sunlight): FSE: 1.12, FSM: 0.014 [r = 1.2%]1924 Tomascheck (starlight): FSE: 0.3, FSM: 0.02 [r = 6.62%]1925-26 Miller: FSE 1.12, FSM: 0.088 [r = 7.8%]1926 Kennedy: FSE: 0.07, FSM: 0.002 [r = 2.8%]1927 Illingworth: FSE: 0.07, FSM: 0.0002 [r = 0.28%]1927 Piccard and Stahel: FSE:0.13, FSM: 0.006 [r = 4.6%]1929 Michelson: FSE: 0.9, FSM: 0.01 [r = 1.1%]1930 Joos: FSE: 0.75, FSM: 0.002 [r = 0.26%]

Although some recent experiments claim not to find any ether drift to 10⁻¹⁵ (*e.g.*, Kennedy-Thorndike) [57], Galev has discounted these since highly enclosed solid-state apparatus will invariably have difficulty in detection. Galaev also reports that the reason those after Joos kept seeing a "null" result was due to the use of metal chambers. Since most of the experiments used gamma radiation as the light source, the experimenters covered their apparatus with metal to protect themselves from harm. [58] Galaev concludes: "The known works…cannot be ranked as experiments which could confirm or deny Miller's results [or] confirm or deny the hypothesis about the ether's existence in nature." Hector Múnera adds: "…Joos' curves for individual measurements do not need to have the same amplitude and shape. Indeed, Joos observed such differences (see his figure 11, page 404). Unfortunately, Joos did not expect such variations (again, another instance of systematic error #2), so that he rejected all large amplitudes as due to experimental errors (he particularly mentions session 11 at 23:58). From smaller amplitudes, Joos obviously obtained a small velocity that he reported (translating from German) as 'an ether wind smaller than 1.5 km/s' (page 407). Even then, this is not a zero velocity."[59]

Ultimately, the problem with positive interferometry results for Copernican theory is that it cannot have a rotating Earth without also having a revolving Earth, since the seasons must be accounted for, thus it cannot use the results to its advantage. Considering the unanswerable problems the Sagnac and Michelson-Gale experiments present to modern physics and cosmology, it is no surprise that both experiments are hardly mentioned, if at all, in the physics literature, and it is likewise no puzzle why Einstein makes no mention of these crucial experiments in any of his writings.

I close with this quote from astrophysicist G. J. Whitrow: "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." [60]

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