

SCIENTIFIC HERESIES AND
THEIR EFFECT ON THE CHURCH

A CRITIQUE OF:

*“THE REALIST GUIDE TO
RELIGION AND SCIENCE”*

ROBERT SUNGENIS

Scientific Heresies and Their Effect on the Church: A Critique of: “The Realist Guide to Religion and Science” is authored by Robert A. Sungenis, Ph.D.

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Published by:

Catholic Apologetics International Publishing, Inc.

P.O. Box 278

State Line, PA 17263

Cover design: Robert Sungenis

NB: The Scripture portions of this book come mainly from the 1951 Revised Standard Version, but other translations are used when appropriate, and the author has also given his own translation at times. Greek and Hebrew font is taken from www.teknia.com and all Hebrew fonts are transcribed without Masoretic vowel pointing.

ISBN 13: 978-1-939856-23-4

PDF version

NB: *The Realist Guide to Religion and Science*: ISBN: 978-085244-922-6, 527 pages, paperback, published by Gracewing, 2018, United Kingdom, authored by Fr. Paul Robinson, a priest of the Society of St Pius X.

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Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

Abbreviations for the Books of Scripture

New Testament

Mt	Matthew
Mk	Mark
Lk	Luke
Jn	John
Ac	Acts
Rm	Romans
1Co	1 Corinthians
2Co	2 Corinthians
Gl	Galatians
Ep	Ephesians
Ph	Philippians
Cl	Colossians
1Th	1 Thessalonians
2Th	2 Thessalonians
1Tm	1 Timothy
2Tm	2 Timothy
Ti	Titus
Pm	Philemon
Hb	Hebrews
Jm	James
1Pt	1 Peter
2Pt	2 Peter
1Jn	1 John
2Jn	2 John
3Jn	3 John
Jd	Jude
Ap	Apocalypse (Revelation)

Old Testament

Gn	Genesis
Ex	Exodus
Lv	Leviticus
Nm	Numbers
Dt	Deuteronomy
Js	Joshua
Jg	Judges
Rt	Ruth

1Sm	1 Samuel
2Sm	2 Samuel
1Kg	1 Kings
2Kg	2 Kings
1Ch	1 Chronicles
2Ch	2 Chronicles
Er	Ezra
Nh	Nehemiah
Tb	Tobit
Jt	Judith
Et	Esther
1Mc	1 Maccabees
2Mc	2 Maccabees
Jb	Job
Ps	Psalms
Pr	Proverbs
Ec	Ecclesiastes
Sg	Song of Solomon
Ws	Wisdom
Es	Ecclesiasticus
Is	Isaiah
Jr	Jeremiah
Lm	Lamentations
Br	Baruch
Ez	Ezekiel
Dn	Daniel
Hs	Hosea
Jl	Joel
Am	Amos
Ob	Obadiah
Jh	Jonah
Mc	Micah
Na	Nahum
Hk	Habakkuk
Zp	Zephaniah
Hg	Haggai
Zc	Zechariah
Ml	Malachi

Authoritative Sources

ACCS	Ancient Christian Commentary on Scripture
ACW	Ancient Christian Writers Series
AHL	Analytical Hebrew/Chaldee Lexicon, Davidson
ANF	Ante-Nicene Fathers
ASV	American Standard Bible (1901)
BAGD	Bauer, Arndt, Gingrich, Danker Greek Lexicon
BHS	Biblica Hebrica Stuttgartensia
CCL	Corpus christianorum latinorum
CE	Catholic Encyclopedia, 1911
CSEL	Corpus scriptorum ecclesiasticorum latinorum
DB	Darby Bible
DR	Douay-Rheims Bible
ESV	English Standard Version (2001)
HAY	Commentary on the Bible by Rev. Leo Haydock
ICC	International Critical Commentary: Driver, et al.
JB	Jerusalem Bible
JR	Faith of the Early Fathers by William A. Jurgens
KDL	Keil and Delitzsch Commentary
KJV	King James Version
KNX	Knox's Translation
LXX	The Greek Septuagint
MT	Masoretic Text
NAB	New American Bible (1970, 1981, 1987)
NABC	New American Bible Commentary
NAS	New American Standard Bible (1995)
NEB	New English Bible
NIV	New International Version (1984)
NJB	New Jerusalem Bible
NKJ	New King James Bible
NLT	New Living Translation
NPNF	Nicene and Post Nicene Fathers
NRSV	New Revised Standard Version
NT	New Testament
OT	Old Testament
PG	Patrologia graeca, J. Migne
PL	Patrologia latina, J. Migne
RSV	Revised Standard Version
V _g	Vulgate
YL	Young's Literal Translation

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- George Ricker Berry: *The King James Greek-English Interlinear*.
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CHAPTER 1

A REFRESHER COURSE ON SCIENCE AND HISTORY

This book was written for two purposes: First, to educate the public at large by a critical examination of science and history, especially in the areas of cosmogony and cosmology. Although modern science purports to know the origin and operation of the universe, in reality it comprehends very little and actually spreads more falsehood today than it does truth. On its face, modern science is the last formidable bastion of secular society. It is touted as impregnable and invincible. Indeed, today's scientists have the education, the grants, the sophisticated equipment, the iconic image, the universities, the newspapers and the general media on their side. Opposing voices can barely form a whisper of contention. It is truly a Goliath if there ever was one in our modern age and it is as big as the universe itself.

Second, this book contends with Catholics, and anyone else, who have accepted the major teachings of modern science and thereby have rejected either biblical revelation, the traditional ecclesiastical consensus, or the official magisterial statements that disagree with modern science's theories or conclusions. As one can see by the title, I have chosen to focus on the recent book by Fr. Paul Robinson, *The Realist Guide to Religion and Science*. He is a priest of the Society of St. Pius X (SSPX), a very conservative but embattled branch of Roman Catholicism. The reason he was chosen is normally we don't see many examples of staunchly conservative Catholic groups being unduly influenced by the theories of modern science to the point they either reject or neutralize the biblical, traditional and magisterial teachings. If there is any group of Catholics from whom we could expect a rigid traditional Catholic view of either the Bible or its interpretation, it is the SSPX, at least in its beginnings under its founder Archbishop Marcel Lefebvre. But like many conservative groups today, the inevitable tendency is to judge scientific issues according to the world's "status quo" and to avoid being dubbed "Fundamentalist." Fr. Robinson's book, insofar as he represents the SSPX, has proven to be no exception. A good friend of mine who is a priest in the SSPX confided the following to me:

Let me just note that being in the SSPX for over 35 years now, there have always been priests who did not accept 6-day Creation, and who would not even have considered geocentrism as an option, and who were open to certain forms of evolution. The SSPX has always been a mix of ideas of everything that was still considered orthodox in the 1960s. Those in authority have feared to accept new creationist and geocentric proofs which have come forth since the 60's, and have willed to keep a 60's – 70's mentality, despite new proofs, or have not been willing to consider as serious science anything which has come forth from geocentric or creationist arguments. I know, however, several priests open to geocentrism, *etc.*, in the SSPX. You will also note that Father Robinson's book was curiously published by Gracewing publishers and not an SSPX publisher such as the Angelus Press. Perhaps Father Robinson wanted a wider readership, at the same time Angelus Press might have realized that such a book would rock the boat among SSPX faithful.¹

In light of the burgeoning advances of modern science, any religious group—whether liberal, conservative or somewhere in between or to the extremes—must eventually confront today's scientific claims since a good portion of science overlaps with biblical revelation, especially in the areas of cosmogony and cosmology. In most cases, the Bible says one thing and modern science says the exact opposite. What is the good Christian to do? For now, they do a similar thing to what is suggested in Jesus' parable about the seeds. Some will outrightly reject the Bible's testimony; some will accept the Bible's testimony, but only under certain conditions or limitations; and some will accept the Bible in toto and use what they can from modern science to verify it.

Whereas Catholics of two to three generations ago were holding to the tradition that accepts all of the Bible's testimony as true and trustworthy, most of our generation has rejected that belief. A high percentage of our Catholic institutions of higher learning, including our seminaries, no longer believe the Bible is inerrant, especially in its historical narratives and cosmological perspectives. As noted, one such person is Fr. Paul Robinson. Although his book rightly chastises modern science for going overboard in its more speculative theories, we find him accepting many of

¹ Letter received August 2018; name withheld for privacy.

its more popular theories, in whole or in part, with hardly a concern that these theories go directly against the clear revelation of Scripture, as well as the patristics and official statements of the magisterium. My educated guess is that Archbishop Lefebvre would see things quite differently than what Fr. Robinson presents in his book, especially if Lefebvre were educated to the true nature of modern science and how the best of modern science can be used to support the traditional views of Catholicism.

In his 1986 piece, *An Open Letter to Confused Catholics*, Lefebvre speaks of the tumultuous time during and after Vatican Council II. He explains how the liberals of the Catholic Church—many of them merely rank unbelievers who wore Catholic garb—infiltrated the Council and planted seeds of dissent in a number of its sixteen documents. Not that they inundated the council with outright heretical statements; rather, they intermittently added highly ambiguous language, seemingly innocuous in itself, but which could later be interpreted in a much more liberal manner for the rest of the century and beyond. Lefebvre remarks about this phenomenon in his letter:

We are reduced to analyzing the statements indefinitely in order to know what they mean, and we only come up with approximations because the terms are ambiguous. And this was not through negligence or by chance. Fr. Schillebeeckx admitted it. “We have used ambiguous terms during the Council and we know how we shall interpret them afterwards.” Those people knew what they were doing.²

A few years ago, German Cardinal Walter Kasper, another highly influential liberal, said something a little deeper:

In many places, [the Council Fathers] had to find compromise formulas, in which, often, the positions of the majority are located immediately next to those of the minority, designed to delimit them. Thus, the conciliar texts themselves have a huge potential for conflict, open the door to a selective reception in either direction.” “For most Catholics, the developments put in motion by the council are part of the church’s daily life. But what they are experiencing is not the great new beginning nor the springtime of the church, which were expected at that

² *Open Letter to Confused Catholics*, 1986, p. 111, published in the year of the first of John Paul II’s Interreligious Prayer Meetings.

time, but rather a church that has a wintery look, and shows clear signs of crisis.” “For those who know the story of the twenty councils recognized as ecumenical, this [the state of confusion] will not be a surprise. The post-conciliar times were almost always turbulent. The [Second] Vatican, however, is a special case.”³

How the liberals leverage Vatican II is important for us to know because in 2013 Pope Benedict XVI revealed something about Vatican II’s origin we had never before considered. He revealed that one of the major reasons the council was called was due to the Galileo affair that occurred some 350 years prior. As Benedict remembered it from 1962, the Catholic prelatry, by and large, believed the Church had erred in the Galileo case and they were planning for Vatican II to address the error, yet not by exonerating the Church but in politely and subtly admitting defeat. As Benedict put it:

So we went to the Council not only with joy, but with enthusiasm. There was an incredible anticipation. We hoped that everything would be renewed, that a new Pentecost would truly come, a new era of the Church – because at that time, the Church was still strong enough: Sunday practice still good, the vocations to the priesthood and to religious life were already a bit reduced but still sufficient. Nonetheless, we felt that the Church was not advancing, it was diminishing, and it seemed rather a reality of the past and not the bringer of the future. And in that moment, we hoped that this relationship would be renewed, that it would change; that the Church would once again be a force of tomorrow and a force of today.

And we knew that the relationship between the Church and the modern period was a bit in conflict, beginning with the error of the Church in the case of Galileo Galilei; we thought we could correct this wrong beginning and find the union between the Church and the best forces in the world in order to open up the future of humanity, to open true progress. So we were full of hope, of enthusiasm, and of the will to do our part for this thing.⁴

³ *L’Osservatore Romano*, April 12, 2013.

⁴ Pope Benedict’s farewell address to priests at the Vatican, as reported by *L’Osservatore Romano*, February 14, 2013, page 4, paragraph #5 in the article “Al concilio pieno di entusiasmo e speranza.” The underlined part in the original Italian is: “E sapevamo che la relazione tra la Chiesa e il periodo moderno, fin

Before we get into the details of that process, let's step back a bit and look at the landscape. Most Catholics today, including many in the Vatican hierarchy, have been unduly stigmatized by the Galileo affair. Since almost everyone has accepted as a *fait accompli* the heliocentric system as being the true operating model of cosmology, almost every apologetic issued from either the Catholic hierarchy or its lay scholars in the last hundred years has, in one form or another, been for the sole purpose of finding some rationale why previous popes and their heads of doctrine, if led by the Holy Spirit away from all error, could condemn heliocentrism if it was the true system.

But this type of apologetic has had severe problems from the start. To be Catholic has always meant that what was formally decreed in the past remains formally decreed in the present, since, at the highest levels, the Church, as promised by Christ, will be without error in its doctrinal teaching. As it stands, today's Catholic must accept that the officials who issued our historic decrees, even those issued in 1616 and 1633 against Galileo, did so under the aegis of the Holy Spirit, Who cannot lie. Even for decrees issued on lower levels of authority, unless a higher authoritative decree modified it, it has been commonly understood that a Catholic was bound to give his full allegiance to the former.

Hence the dilemma for the contemporary Catholic apologist is:

- a. if the Holy Spirit was guiding the Church into all truth in the Galileo affair, and
- b. if the Earth revolves around the sun,

...then how could the Church have been led to make such a serious blunder, especially since the Church specifically stated in 1616 and 1633 that geocentric doctrine, because it came from divine revelation, was a

dall'inizio, era un po'contrastante, cominciando con l'errore della Chiesa nel caso di Galileo Galilei; si pensava di correggere questo inizio sbagliato e di trovare di nuovo l'unione tra la Chiesa e le forze migliori del mondo, per aprire il futuro dell'umanità, per aprire il vero progresso. Così, eravamo pieni di speranza, di entusiasmo, e anche di volontà di fare la nostra parte per questa cosa." The day this speech was reported to the world, February 15, it began the 450th anniversary of Galileo's birth, followed four days later with the 540th anniversary of Copernicus' birth.

“matter of faith”⁵ and opposition to the Church’s decision constituted “formal heresy”⁶ Catholic apologists have agonized over this question for centuries. Unfortunately, almost all of them have tried to answer the dilemma by denying (a) and accepting (b). As even the secular historian Feyrabend surmises:

It is a pity that the Church of today, frightened by the universal noise made by the scientific wolves, prefers to howl with them instead of trying to teach them some manners.⁷

The Church at the time of Galileo not only kept closer to reason as defined then and, in part, even now; it also considered the ethical and social consequences of Galileo’s views. Its indictment of Galileo was rational and only opportunism and a lack of perspective can demand a revision”⁸

Under the strain of appearing entrenched in an archaic medieval mentality and obtuse to the modern world, it was only a matter of time before the Catholic Church would re-address the Galileo affair in hopes of reconciling what were presumed to be the facts of science with the Church’s official declarations about the truths of Scripture. Up to this time, no pope or council had even uttered the word “Galileo.” The first to break

⁵ As Bellarmine put it: “In Scripture there are many things which of themselves do not pertain to the faith, that is, which were not written because it is necessary to believe them. But it is necessary to believe them because they were written, as is evident in all the histories of the Old Testament, in the many histories in the Gospel and in the Acts of the Apostles, in the greetings of Paul in his Epistles, and in other such things” (*De controversiis*, I, I, 4, 12, as found in Roberto Cardinal Bellarmine, S. J., *Opera omnia*, cited in Blackwell’s *Galileo, Bellarmine and the Bible*, p. 32).

⁶ The 1633 sentence against Galileo stated heliocentrism was: “*è propositione assurda e falsa in filosofia, e formalmente heretica*” (“an absurd proposition and false in philosophy and formally heretical”) cited in *Galileo E L’Inquisizione*, Favaro, p. 143.

⁷ *Farewell to Reason*, p. 260. He adds: “In 1982 Christian Thomas and I organized a seminar at the Federal Institute of Technology in Zürich with the purpose of discussing how the rise of the sciences had influenced the major religions and other traditional forms of thought. What surprised us was the fearful restraint with which Catholic and Protestant theologians treated the matter – there was no criticism either of particular scientific achievements or of the scientific ideology as a whole” (*ibid*).

⁸ *Ibid.*, p. 125.

the taboo was Paul VI in a passing reference to Galileo (along with Michelangelo and Dante) in a June 10, 1965 speech at Pisa.

Twenty-five years later, Cardinal Ratzinger, then *Prefect of the Sacred Congregation for the Doctrine of the Faith*, was having second thoughts on the Galileo issue—serious second thoughts. His rethinking of the Galileo issue came out in a 1990 speech he gave in Parma, Italy, that had all the earmarks of trying to exonerate the Church and reverse course. Instead of seeing a crisis in the Church over Galileo, the title of his speech was, *The Crisis of Faith in Science*, thus pointing the finger directly at science. As Paul Feyerabend introduces Ratzinger's speech:

Cardinal Joseph Ratzinger, who holds a position similar to that once held by Bellarmine, formulated the problem in a way that would make a revision of the judgement [against Galileo] anachronistic and pointless. *Cf.* his talk in Parma of 15 March 1990.⁹

As Ratzinger saw the situation now, it was completely different than it was in 1962 under the 'Galileo mentality' of the Vatican II prelatore:

Today, things have changed. According to Bloch, the heliocentric system—just like the geocentric—is based upon presuppositions that can't be empirically demonstrated. Among these, an important role is played by the affirmation of the existence of an absolute space; that's an opinion that, in any event, has been cancelled by the Theory of Relativity. Bloch writes, in his own words: "From the moment that, with the abolition of the presupposition of an empty and immobile space, movement is no longer produced towards something, but there's only a relative movement of bodies among themselves, and therefore the measurement of that [movement] depends to a great extent on the choice of a body to serve as a point of reference, in this case is it not merely the complexity of calculations that renders the [geocentric] hypothesis impractical? Then as now, one can suppose the earth to be fixed and the sun as mobile."¹⁰

⁹ *Against Method*, 3rd edition, Verso, London, New York, 1975, 1996, p. 134.

¹⁰ Speech given in Parma, Italy, March 15, 1990, titled: "The Crisis of Faith in Science," partly reported in *Il Sabato*, March 31, 1990, pp. 80ff, and in the *Corriere della Sera*, March 30, 1990, and cited in *30 Days*, January 1993, p. 34,

Ratzinger's reasoning follows what most in science know today as the "general principle of relativity," an offshoot of the former "Galilean relativity," but which now applies to dynamics (gravity and inertial forces) instead of merely geometrics (Ptolemaic *v.* Copernican *v.* Tychonic kinematics). Ratzinger's mention of the "presuppositions" of the heliocentric system refers, in the first place, to Isaac Newton's presupposing the universe is "absolute," that is, always the same, infinite and non-moving, and consequently, static and inert with regard to any effects on our solar system. If the universe was motionless and uninvolved in the mechanics of our solar system, consequently only the dynamic forces contained within the solar system could be employed to determine what body revolved around another. In that confined system, the Earth, being smaller than the sun, would necessarily revolve around the sun, according to Newton's gravitational equation $F = GM_1m_2/r^2$ and the force equation $F = ma$.¹¹ Since at this stage in history no one knew if or how the rest of the universe might affect our solar system, Newton's "presupposition" that it was absolute and inert was taken as fact, at least for the next two hundred years until the arrival of Ernst Mach in the late 1800s and Einstein in the early 1900s.

On a lesser level, an absolute universe allowed Newton to define a straight line—a most vital component of his "laws of motion" outlined in his 1687 book, *Principia Mathematica*. A line could only be straight if the space within which it was drawn or travelling was absolute and did not curve or move. Accordingly, in positing the smaller body had to revolve around the larger, Newton said this difference occurred because the greater gravity of the larger body would pull on the smaller body, and the smaller body would resist, at least partially, by seeking to move away in a straight line, which resistance he called "inertia." The result of the two vectors (*i.e.*, gravity and inertia) would produce a curved path for the smaller body around the larger (although, more technically, both bodies moved around

and referenced also by Atila S. Guimarães in "The Swan Song of Galileo's Myth," published by *Tradition in Action*, nd.

¹¹ The equation, $F = GM_1m_2/r^2$, says the Force of gravity equals the product of the gravitational constant multiplied by the larger mass and multiplied by the smaller mass, divided by the radius of the distance between the two masses, squared. The equation $F = ma$ says the Force on an object equals the mass of the object multiplied by the object's acceleration.

their mutual center of mass, but since the center of mass was very much closer to the sun, the result is the Earth revolving in a slight elliptical orbit around the sun). As Newton summed it up:

Thence indeed the Copernican system is proved a priori. For if a common center of gravity is computed for any position of the planets, it either lies in the body of the Sun or will always be very near it.¹²

This little system seemed to work quite well and it seemed safe to assume that the universe and its stars had little to say about the solar system's mechanics. As long as the universe is not included, Newton's local laws of motion still work today, at least within a comfortable margin of error.

But then doubts about the validity of Newton's "presupposition" began to haunt modern physics. Was Newton allowed to assume the universe was "absolute" and inert in regard to our solar system? What "law" said it had to be absolute? And what about this mysterious thing called "inertia" that supposedly makes a body move in a straight line? What is it, and where does it come from? Moreover, if space were not absolute but either moved or was curved, could we really say that a body in motion moves in a straight line? And what about all those stars in the universe? If our sun has gravity and pulls the Earth, would not trillions of stars and galaxies (which we were now able to see by powerful telescopes in the 1900s) have proportionately more gravity than our small sun and thus have some effect on our solar system?

All of these questions began to surface by the time of Ernst Mach and Albert Einstein. As Ratzinger himself notes: "...an absolute space; that's an opinion that, in any event, has been cancelled by the Theory of Relativity." This is a very profound statement, especially coming from the Catholic Church's prefect of doctrine. If Newton's "absolute space" has been falsified, that means Newton's whole system of mechanics has been upset, since all of it depended on space being absolute. This also means that the the gravitational equation $F = GM_1m_2/r^2$ and the force equation $F = ma$, since they are also dependent on there being an absolute space from

¹² Newton's *Copernican Scholium*, December, 1684.
<https://plato.stanford.edu/entries/newton-principia/>

which to measure both the forces and straight lines, are either in error or woefully incomplete.

Ernst Mach was the first to discover this conundrum of Newtonian theory. In brief, he said Newton had no right to assume the universe was absolute. Mach began from his insight into the tremendous effect the gravity of all the universe's stars should have on our solar system. Whatever their combined force—even if it was neutral at the center—Mach said it was like a web surrounding our solar system such that “inertia” was the result of a body trying to move through the web. Essentially, the gravity web of the stars would prohibit a body from accelerating (*i.e.*, prohibit it from gaining more speed than it already had). This was the beginning of the ‘general principle of relativity’ in which no body in the universe can be considered isolated from any other body but all move relative to each other, dynamically and kinematically. Whatever moved locally (*e.g.* the Earth around the sun; Jupiter's moons around Jupiter) was also moving in relation to the rest of the universe.

In the final analysis, Mach came to two vital conclusions. The first dealt with the geometrics of the universe; the second with the dynamics:

Obviously it matters little if we think of the Earth as turning about on its axis, or if we view it at rest while the fixed stars revolve around it. Geometrically these are exactly the same case of a relative rotation of the Earth and the fixed stars with respect to one another.¹³

All masses, all velocities, thus all forces are relative. There is no basis for us to decide between relative and absolute motion....If there are still modern authors who, through the Newtonian water bucket arguments, allow themselves to be misled into differentiating between relative and absolute motion, they fail to take into account that the world system has

¹³ Ernst Mach, *Die Mechanik in Ihrer Entwicklung Historisch-Kritisch Dargestellt*, Leipzig: Brokhaus, 1883. English title: *The Science of Mechanics: A Critical and Historical Account of its Development*, translated by T. J. Macormack, La Salle, Open Court Publishing, 1960, 6th edition, p. 201. The seventh edition of Mach's book was published in 1912.

been given to us only once, but the Ptolemaic and Copernican views are only our interpretations, but both equally true.¹⁴

Although in this treatise Mach does not himself adopt geocentrism, he repeatedly challenges modern science that geocentrism is not only a viable alternative, but it substantially answers the famous 1887 Michelson-Morley experiment—the experiment that forced a choice between a stationary Earth and the Special Theory of Relativity. Albert Michelson, having already been confronted by the 1871 experiment of George Biddell Airy that suggested the Earth was not moving in space, based his 1881 and 1887 experiments on the fact that if the Earth were moving around the sun, then a light beam discharged in the direction of the presumed revolution would necessarily experience resistance from the substance of space, which at that time everyone from Maxwell to Hertz understood as “ether” and which was the basis for both their electromagnetic equations. To his surprise, Michelson did not measure any appreciable resistance on the light beam.¹⁵ If there was no resistance, then a possible interpretation is that the Earth is not revolving around the sun. But since Einstein and the rest of the world were now 400-years deep into Copernicanism, he was more or less

¹⁴ Ernst Mach, *Die Mechanik in Ihrer Entwicklung Historisch-Kritisch Dargestellt*, Leipzig: Brokhaus, 1883, p. 222. The original German reads: “Alle Massen, alle Geschwindigkeiten, demnach alle Kräfte sind relativ. Es gibt keine Entscheidung über Relatives und Absolutes, welche wir treffen könnten, zu welcher wir gedrängt wären....Wenn noch immer moderne Autoren durch die Newtonschen, vom Wassergefäß hergenommenen Argumente sich verleiten lassen, zwischen relativer und absoluter Bewegung zu unterscheiden, so bedenken sie nicht, daß das Weltsystem uns nur einmal gegeben, die ptolemäische oder kopernikanische Auffassung aber unsere Interpretationen, aber beide gleich wirklich sind” (Translated by Mario Derksen).

¹⁵ A. A. Michelson and E. W. Morley, “On the Relative Motion of the Earth and the Luminiferous Ether,” Art. xxxvi, *The American Journal of Science*, eds. James D and Edward S. Dana, No. 203, vol. xxxiv, November 1887. Various scientists and historians admitted what this meant: “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” (*Einstein: The Life and Times*, 1984, pp. 109-110); Even Michelson was astounded: “This conclusion directly contradicts the explanation of the phenomenon of aberration which has been hitherto generally accepted, and which presupposes that the Earth moves” (“The Relative Motion of the Earth and the Luminiferous Ether,” *American Journal of Science*, Vol. 22, August 1881, p. 125).

forced to interpret Michelson's results to mean there was no ether to create a resistance; and if there is no resistance, then light speed must be constant, both of which became the basis of his 1905 theory of Special Relativity.¹⁶

But thirty-eight years later (1925), Michelson did another experiment, but this time he sought to measure the Earth's rotation rate instead of its revolution around the sun. He used the same scientific principle, namely, that a light beam going through ether should experience resistance against the direction of the Earth's movement. Michelson could do so because he never accepted Einstein's postulates nor that ether was non-existent. To his total surprise, and in total contrast to the 1887 results (which were null for a revolving Earth), this time, when measuring for a daily rotation, Michelson found his results were accurate to within 98%, thus confirming the presence of ether as well as a daily rotation, not to mention an apparent nullification of Special Relativity's insistence on no ether and a constant speed of light.¹⁷

¹⁶ Einstein gave a speech at Kyoto University, Japan, on Dec. 14 1922. In one part he stated: "Soon I came to the conclusion that our idea about the motion of the Earth with respect to the ether is incorrect, if we admit Michelson's null result as a fact. This was the first path which led me to the special theory of relativity. Since then I have come to believe that the motion of the Earth cannot be detected by any optical experiment, though the Earth is revolving around the sun" (Yoshimasa A. Ono, *Physics Today*, 35 (8), 45 (1982)). We should add that "length contraction" (of Michelson's apparatus) and "time dilation" became required artifacts of Special Relativity since a physical reason had to be given to explain why the motion of the Earth could not be detected.

¹⁷ *The New York Times*, even though partial to Einstein, could not deny the results and thus described Michelson's 1925 results as: "The register in the flight of these beams was an instrument known as the interferometer, which Professor Michelson has been perfecting for forty years. Through it was visible a white circle striped with vertical fine lines like hair drawn tightly across the face of an oval mirror. These were called interference fringes due to the fact that if the beams reached home at different times it would be recorded by a displacement of these lines. This displacement was shown in the experiment." Despite the fact that a "displacement" or "ether drift" would immediately nullify Special Relativity, the *Times* sought to protect Einstein and thus stated in its headline the contradictory words: "Michelson Proves Einstein Theory: Experiments Conducted with 5200-Foot Vacuum Tube Show Light Displacement: Ether Drift Confirmed" (*The New York Times*, published January 9, 1925).

Using Mach's relativistic terminology, the 1925 experiment thus confirmed, in terms of relative motion, that either the Earth was daily rotating in a fixed universe or the universe was rotating around a fixed Earth. It also revealed that although the empirical evidence from Michelson's two interferometers (which was based on the same principle of light interference with ether), showed a relative daily rotation in 1925, it did not show an annual revolution of the Earth around the sun in 1887. The consequences of these two facts were not good for Copernicans. Since heliocentrism requires *both* an annual revolution *and* a daily rotation of the Earth; but geocentrism requires only a daily rotation of the universe around a fixed Earth, obviously Michelson's experiments lent themselves to confirming the geocentric system and nullifying the heliocentric.

Not surprisingly, there is no admission of this fact in the physics literature. Those promoting Einstein excused themselves from Michelson's 1925 results by claiming Special Relativity does not deal with non-inertial or accelerating frames (a rotating frame). But this excuse exposed the fact that Special Relativity was formerly used to explain Michelson's 1887 experiment, even though a revolving Earth around the sun is also a non-inertial frame. In this case, what is good for the goose should also be good for the gander. But if Special Relativity was surrendered in the 1887 case, modern science would have no answer to Michelson's experiment and the only option left would be a non-moving Earth—something no one was ready to accept, which allowed Special Relativity to remain king.

As for General Relativity, although it allows for the non-inertial rotational frame used in the 1925 experiment and does so by using multi-dimensional complex tensors in space-time and non-Euclidean geodesics, it wasn't much of a physical explanation of the results as it was a mathematical one; and in any case, Occam's razor favors the much simpler explanation, namely, that ether caused the speed of the light beam to change. But at this time in history, Copernicanism ruled with an iron hand and not even empirical evidence to the contrary would convince anyone the Earth was fixed in space, neither revolving nor rotating.¹⁸ As Feyerabend notes:

¹⁸ For example: "There was only one other possible conclusion to draw – that the Earth was at rest. This, of course, was preposterous" (Bernard Jaffe, *Michelson*

...the idea of free and independent research is a chimera....we have seen that even the liberal climate of the modern age has not prevented scientists from demanding the same kind of authority which Bellarmino possessed as a matter of course but exercised with much greater wisdom and grace.¹⁹

In retrospect, after Mach turned the world upside down, both literally and figuratively, Einstein took it to the next step, but he knew there was no way to avoid Mach's reasoning. If the universe is not absolute, that means it can move; and if it moves, it can rotate; and if it rotates it will do so around a fixed Earth. After all, this duality is precisely the nature of "relativity." Hence we have either a rotating Earth in a fixed universe (ala Newton) or we must also allow a rotating universe around a fixed Earth (ala Mach, Einstein). The problem with relativity, of course, is that it can't tell us which one is the reality, only that both systems can work by the laws of physics now known. But at least everyone agreed it was wrong for Newton to assume the universe was absolute and fixed, since his system would not allow the universe to rotate around a fixed Earth—in defiance of the laws of relativity. As such, Einstein said Newton's system had a "defect." This defect was spelled out in one of his most famous paragraphs on his theory of General Relativity:

Let K [the universe] be a Galilean-Newtonian coordinate system [a system of three dimensions extending to the edge of the universe], and let K' [the Earth] be a coordinate system rotating uniformly relative to K [the universe]. Then centrifugal forces would be in effect for masses at rest in the K' coordinate system [the Earth], while no such forces would be present for objects at rest in K [the universe]. Already Newton viewed this as proof that the rotation of K' [the Earth] had to be considered as "absolute," and that K' [the Earth] could not then be treated as the "resting" frame of K [the universe]. Yet, as E. Mach has shown, this argument is not sound. One need not view the existence of

and the Speed of Light, p. 76); "In the effort to explain the Michelson-Morley experiment...the thought was advanced that the Earth might be stationary....Such an idea was not considered seriously, since it would mean in effect that our Earth occupied the omnipotent position in the universe, with all the other heavenly bodies paying homage by revolving around it" (Arthur S. Otis, *Light Velocity and Relativity*, p. 58).

¹⁹ *Farewell to Reason*, p. 260.

such centrifugal forces as originating from the motion of K' [the Earth]; one could just as well account for them as resulting from the average rotational effect of distant, detectable masses as evidenced in the vicinity of K' [the Earth], whereby K' [the Earth] is treated as being at rest. If Newtonian mechanics disallow such a view, then this could very well be the foundation for the defects of that theory...²⁰

Cardinal Bellarmine, more or less, used the same “relative motion” argument against Fr. Foscarini in 1615:

You might tell me that Solomon spoke according to appearances, since it appears to us that the sun revolves when the earth turns, just as it appears to one on a ship who departs from the shore that the shore departs from the ship.²¹

We see that even at this early time, the “relative motion” argument was in vogue, although neither side knew that relative motion incorporated dynamic forces. They only knew the geometry of relative motion.

Einstein mentions at least one of the dynamic forces as he notes “the existence of such centrifugal forces” in the previous paragraph. In another place, he mentions the Coriolis force in a June 25, 1913 letter to Ernst Mach:

Your happy investigations on the foundations of mechanics, Planck's unjustified criticism notwithstanding, will receive brilliant confirmation. For it necessarily turns out that inertia originates in a kind of interaction between bodies, quite in the sense of your considerations on Newton's pail experiment. The first consequence is

²⁰ Quote taken from Hans Thirring's, “Über die Wirkung rotierender ferner Massen in der Einsteinschen Gravitationstheorie,” *Physikalische Zeitschrift* 19, 33, 1918, translated: “On the Effect of Rotating Distant Masses in Einstein's Theory of Gravitation.” Philosopher and scientist Bertrand Russell puts it this way: “Whether the Earth rotates once a day from west to east, as Copernicus taught, or the heavens revolve once a day from east to west, as his predecessors believed, the observable phenomena will be exactly the same. This shows a defect in Newtonian dynamics, since an empirical science ought not to contain a metaphysical assumption [an absolute universe], which can never be proved or disproved by observation” (Bertrand Russell, *The ABC of Relativity*, London, revised edition, editor Felix Pirani, 1958, pp. 13-14.)

²¹ Antonio Favaro, *Le Opere di Galileo Galilei*, vol. 12, p. 172.

on p. 6 of my paper. The following additional points emerge: (1) If one accelerates a heavy shell of matter S, then a mass enclosed by that shell experiences an accelerative force. (2) If one rotates the shell relative to the fixed stars about an axis going through its center, a Coriolis force arises in the interior of the shell, that is, the plane of a Foucault pendulum is dragged around.²²

What Einstein is saying is there are two basic forces generated from the angular momentum of a rotating universe, the centrifugal and the Coriolis forces. These two forces, in combination, will cause all the celestial bodies to revolve daily around the universe's central axis. Although the centrifugal force makes the celestial bodies move outward, the Coriolis force, registering twice the power of the centrifugal, forces the bodies inward, and the result of the two unequal vectors will be a net centripetal force making all the celestial bodies circle the universe's center of mass at their respective declinations and ascensions.²³ Moreover, a fixed Earth will necessarily share the same center of mass with the universe, and viola! we have Einstein's alternative universe that is demanded by his General Relativity theory.

The problem with the Newtonians, however, was that they could not engage in a "relative motion" argument, since they had to insist on an absolute universe if their equations ($F = GM_1m_2/r^2$ and $F = ma$) were going to pan out. But insisting on an absolute universe as the reality still meant they were required to answer how their equations would fit into a non-absolute world. After all, we see rotations and accelerations almost everywhere we look. What the Newtonians found was that if the system under observation is accelerating (*i.e.*, rotating), the only way Newtonian mechanics could account for the acceleration was by mathematically adding in, by hand, the centrifugal and Coriolis forces. Modern science still does the same today when they send space probes to the planets. $F =$

²² Compiled by Friedrich Herneck in "Zum Briefwechsel Albert Einsteins mit Ernst Mach," *Forschungen und Fortschritte*, 37:239-43, 1963. Facsimile of this June 25, 1913 hand-written letter of Einstein to Mach available in *Gravitation*, pp. 544-545.

²³ See https://en.wikipedia.org/wiki/Coriolis_force, "It is seen that the Coriolis acceleration not only cancels the centrifugal acceleration, but together they provide a net 'centripetal,' radially inward component of acceleration (that is, directed toward the center of rotation)". Download 08-26-2017.

ma won't work unless they add in the inertial forces.²⁴ The equation then becomes $F = ma + \text{centrifugal} + \text{Coriolis}$ forces. This situation, again, tells us there is a defect in the Newtonian system. If the system claims it is comprehensive and is taking everything into account, then it shouldn't need to add in foreign figures its original equations don't include.

To be fair to Newton, he did at one point consider the viability of a system in which the Earth could be fixed and the sun and planets revolve around it. Newton said such a situation would require an "external force" outside the solar system that would offset the gravity of the sun. He writes:

In order for the Earth to be at rest in the center of the system of the Sun, Planets, and Comets, there is required both universal gravity and another force in addition that acts on all bodies equally according to the quantity of matter in each of them and is equal and opposite to the accelerative gravity with which the Earth tends to the Sun. For, such a force, acting on all bodies equally and along parallel lines, does not change their position among themselves, and permits bodies to move among themselves through the force of universal gravity in the same way as if it were not acting on them. Since this force is equal and opposite to its gravity toward the Sun, the Earth can truly remain in equilibrium between these two forces and be at rest. And thus celestial bodies can move around the Earth at rest, as in the Tychonic system.²⁵

²⁴ Per Wikipedia under "Coriolis force": "As a result of this analysis an important point appears: *all* the fictitious accelerations must be included to obtain the correct trajectory. In particular, besides the Coriolis acceleration, the centrifugal force plays an essential role." (https://en.wikipedia.org/wiki/Coriolis_force). Downloaded 08-26-2018.

²⁵ Proposition 43, Theorem 22, which was supposed to be the last page of his *Principia Mathematica* but for some unknown reason was not included in the final edit. My thanks to George E. Smith of Tufts University for the granting of his essay for my use, titled: *Newtonian Relativity: A Neglected Manuscript, an Understressed Corollary*, in email of August 8, 2015. Stephen Weinberg quotes Newton's proposition from Smith with the comment: "If we were to adopt a frame of reference like Tycho's in which the Earth is at rest, then the distant galaxies would seem to be executing circular turns once a year, and in general relativity this enormous motion would create forces akin to gravitation, which would act on the Sun and planets and give them the motions of the Tychonic theory. Newton seems to have had a hint of this. In an unpublished 'Proposition 43' that did not make it into the *Principia*, Newton acknowledges that Tycho's theory could be

At that time, and in the face of his insistence on an “absolute” universe, this was the best Newton could do. Hence it would never click in his mind that the very forces he relegated as “fictitious” (*i.e.*, centrifugal, Coriolis) would become the very forces that are the essence of his “another force in addition” to gravity that would allow a Tychoic Earth-centered system.

Now that we know the science and its development from Newton to Einstein, we can sympathize with Cardinal Bellarmine in how he determined to deal with the Galileo affair. Since, as we noted, Bellarmine was aware of the “relative motion” argument and, unlike Newton and like Einstein, did not insist on an absolute universe but considered both a universe rotating around a fixed Earth and an Earth rotating within a fixed universe, how was he to choose between the two “relative” possibilities? There was only one solution. Hence Bellarmine would answer today as he did to Fr. Foscarini on April 12, 1615:

Second, I say that, as you know, the Council [of Trent] has prohibited interpretation of Scripture contrary to the common agreement of the Holy Fathers.²⁶ And if Your Reverence will read not only the Holy Fathers but also the modern commentaries on Genesis, the Psalms, Ecclesiastes, and Joshua, you will find that they all agree on the literal interpretation that the sun is in heaven and rotates around the earth with great speed, and that the earth is very far from the heavens and stands immobile in the center of the world.²⁷ Ask yourself then how could the Church, in its prudence, support an interpretation of Scripture which is contrary to all the Holy Fathers and to all the Greek and Latin commentators. Nor can one reply that this is not a matter of faith, because even if it is not a matter of faith because of the subject matter [ex parte objecti], it is still a matter of faith because of the speaker [ex parte decentis].²⁸ Thus anyone who would say that Abraham did not have two sons and Jacob twelve would be just as much of a heretic as

true if some other force besides ordinary gravitation acted on the Sun and planets” (Steven Weinberg, *To Explain the World: The Discovery of Modern Science*, Harper Collins, 2015, pp. 251-252).

²⁶ “...il Concilio prohibisce esporre le Scritture contra il commune consenso de’Santi Padri” (*ibid.*, p. 172).

²⁷ “...trovarà che tutti convengono in esporre ad literam ch’il sole è nel cielo e sta nel centro del mondo, iimmobile” (*ibid.*).

²⁸ “Nè si può rispondere che questa non sia material di fede, perchè se non è material di fede *ex parte obiecti*, è material di fede *ex parte decentis*” (*ibid.*).

someone who would say that Christ was not born of a virgin, for the Holy Spirit has said both of these things through the mouths of the Prophets and the Apostles.²⁹

Reading between Bellarmine's lines, Cardinal Ratzinger, as Prefect of the Sacred Congregation for the Doctrine of the Faith, was saying the same to the people of Parma in 1990 that the Cardinal Inquisitor, Robert Bellarmine, said to his in 1615. By the "Theory of Relativity," as Ratzinger put it, Newton's system was abolished and with it his Copernican universe so that he could thus conclude, "Then as now, one can suppose the earth to be fixed and the sun as mobile." Ratzinger's use of "Then" refers to the debate between Bellarmine and Galileo. Bellarmine knew instinctively the "relativity" issue would never allow Galileo to have proof of a moving Earth, and he also knew that "relativity" had no power over the consensual testimony of Catholic history. In the end, "relativity" was just an illusion, since everyone knew only one system could be the true system, which made the other merely an imposter who preyed on "relativity" to give it equal say.

Unfortunately, although Ratzinger had his eureka moment, the people of Parma were not ready to have theirs. Three hundred and fifty years of the same Galileo drumbeat deterred them from entertaining any other theory than the Copernican and thus no amount of pleading could win them over. Ratzinger was literally run out of town and told never to come back to Parma, which he did, in fact, try as Pope Benedict XVI but was rebuffed.

THE 1992 PAPAL SPEECH ON GALILEO

Two years later, John Paul II gave his "apologetic" speech to the Pontifical Academy of Science in 1992, an attempt to mollify the Galileo problem that had hampered the Church for the last four centuries. Here a new twist in Galileo apologetics made its first appearance. The speech tried to lay the blame for the controversy on "the error of the theologians" in Galileo's day. This was a subtle yet obvious attempt to insulate the 17th century popes and their Holy Office's from blame. Five times the 1992 papal speech refers to these unidentified "theologians" as the cause for the

²⁹ Antonio Favaro, *Le Opere di Galileo Galilei*, vol. 12, p. 172.

controversy, pretending as if there was a stark difference between what the “theologians” were teaching in the 1600s and what the magisterium believed and defended. As Fr. Coyne puts it:

The “theologians” in both discourses are unidentified and unidentifiable. There is no mention of the Congregation of the Holy Office, of the Roman Inquisition or of the Congregation of the Index, nor of an injunction given to Galileo in 1616 nor of the abjuration required of him in 1633 by official organs of the Church. Nor is mention made of Paul V or Urban VIII, the ones ultimately responsible for the activities of those official institutions.³⁰

For example, in 1633 Galileo was told directly by Pope Urban VIII that his idea the Earth moved around the sun was, “an absurd proposition and false in philosophy and formally heretical,” to the point that he sought the Grand Duke of Tuscany, Cosimo Medici II, to help him silence Galileo a year before Galileo’s trial. After the trial, Urban sent letters to all the papal nuncios and universities of Europe requiring their acquiescence to the Vatican’s decree against Galileo. Over a period of six months, an intense correspondence took place between Urban VIII and the ambassador to the Duke of Tuscany, Francesco Niccolini. In it Urban details his outright rejection of Galileo’s “assault on Holy Scripture, religion, and Faith,” wherein Urban implored the Grand Duke to help in “shielding Catholicism from any danger” because “this work of his is indeed pernicious, and the matter more serious than his Highness thinks.”³¹

Similarly, in 1616, the name of Pope Paul V was attached to the canonical injunction given to Galileo forbidding him to speak or write about Copernicanism for the rest of his life. His papal commission of eleven cardinals found heliocentrism “a proposition that was absurd in philosophy and formally heretical, which contradicts the express meaning of Sacred

³⁰ “The Church’s Most Recent Attempt to Dispell the Galileo Myth,” in *The Church and Galileo*, p. 354. Coyne’s reference to “both discourses” refers to Poupard’s “Address at the Conclusion of the Proceedings of the Pontifical Study Commission on the Ptolemaic-Copernican Controversy in the 16th and 17th Centuries,” *Origins* 22 (Nov. 12, 1992), pp. 370-375 in English, with the original in *Après Galilée* (Paris: Desclée de Brouwer, 1994), pp. 93-97, and the actual address given by Pope John Paul II. Both speeches were given on October 31, 1992, with Poupard’s preceding the Pope’s.

³¹ Maurice Finocchiaro, *The Galileo Affair*, pp. 232, 235, 236, as recorded in *Le Opere di Galileo Galilei*, vol. 14, pp. 388-393.

Scripture in many places.” As noted, seventeen years later the 1633 sentence against Galileo stated heliocentrism was: “*è propositione assurda e falsa in filosofia, e formalmente heretica.*”³² Every pope thereafter, including Alexander VII’s banning of Galileo’s book in his 1664 encyclical, *Speculatores domas Israel*, and barring one incident of clerical chicanery in 1820,³³ issued or accepted the same or similar requirements to the Church universal, and no pope ever made a formal and official reversal of the condemnation of either Copernicanism or Galileo. In light of this revealing history, it was rather unconscionable for the author of the 1992 papal speech to pass the buck off to unidentified “theologians” who supposedly imposed on the Church some unheard of hermeneutic of Scripture when, in fact, the same hermeneutic had been fostered by the Church Fathers and medievals in total consensus and made part of the *Catechism of the Council of Trent* in 1566—which defended geocentric doctrine in four places—just 50 years before Galileo was confronted by the Church.

³² “an absurd proposition and false in philosophy and formally heretical,” cited in *Galileo E L’Inquisizione*, Favaro, p. 143.

³³ In 1821, Canon Guiseppi Settele was granted an imprimatur for his book on heliocentrism, after it was approved by Pius VII, albeit in a suspicious and circuitous manner. The only means of obtaining an imprimatur was through the “Master of the Sacred Palace,” who at that time was Fr. Filippo Anfossi and who previously declined the imprimatur to Settele based on the fact that heliocentrism had been formally condemned as heretical by the 1616 and 1633 magisteriums. The “clerical chicanery” occurred when Maurizio Olivieri, Commissioner of the Holy Office and self-professed heliocentrist seeking to advance his belief through Settele, told several falsehoods to Pius VII regarding why the 1616 and 1633 magisteriums had declared heliocentrism a heresy (e.g., the magisteriums condemned only Galileo’s *version* of heliocentrism, not heliocentrism itself, since Galileo did not have elliptical orbits of the planets). Pius VII, testified by many to being weak, sickly and apathetic after the sacking of the Vatican by Napoleon in 1809, as well as his five-year incarceration in Florence (1809-1814); in addition to the fact that Napoleon had confiscated *all* the Galileo records and put them in French libraries, left Pius VII without proper recourse to check Olivieri’s claim, which then led to his fateful decision regarding the imprimatur. Olivieri’s cohort was Cardinal Cappellari, who eventually became Gregory XVI and who took Galileo’s name off the *Index of Forbidden Books* in 1835, without so much as a comment. Imprimaturs, of course, cannot change Catholic doctrine, but the Settele incident nevertheless speaks well of the climate brewing in the Church.

THE MANIPULATION OF VATICAN II'S DEI VERBUM

Of course, much consideration must be given to the fact that the 1992 papal speech was written by Cardinal Paul Poupard of France, a progressive theologian from one of the most liberal schools in Europe. Accordingly, at one point the speech says,

The upset caused by the Copernican system thus demanded epistemological reflection on the biblical sciences, an effort which later would produce abundant fruit in modern exegetical works and which has found sanction and a new stimulus in the Dogmatic Constitution *Dei Verbum* of the Second Vatican Council.³⁴

That is, the modern prelatry's belief that the "Copernican system" had long ago been proven correct became the basis for the content, or at least the interpretation of the content, of the Vatican II document, *Dei Verbum*, which outlined Scripture's authority regarding our knowledge of the world. What we now know, however, is that discrete wording had been surreptitiously placed into *Dei Verbum* that would seemingly allow the liberals to claim the right to reject not only Scripture's testimony against the "Copernican system," but to reject the tradition and the 1616-1633 magisterium's decisions as well.³⁵

³⁴ Paragraph 6.

³⁵ On October 13, 1962 Vatican II's bishops met to vote on the schemas for the Council. The schemas are the directives on issues which the Council seeks to discuss. Three years had been devoted to preparing the schemas, only a half dozen in all. The schemas were approved by John XXIII and written in the traditionally accepted manner, with straight-forward declarations in anticipation of a corresponding canon. As it happened, a vote took place to determine the candidates who would head up the commissions concerning the handling of the Vatican II schemas. In violation of the procedural rules, Cardinal Achille Lienart, one of the German liberal prelates, seized the microphone and began reading a statement demanding consultation before any vote. Pope John XXIII then allowed a completely new slate of candidates and the vote was postponed. Throwing their weight around, the German members succeeded in packing the commissions with liberal candidates thus achieving majorities on all the key commissions. Not surprisingly, Vatican Council II's original schemas were discarded. Thus, Lienart's calculating disruption left the Council without written preparation. The dogmatic schemas were then replaced with pastoral formulations drafted by the very liberals who had previously been placed on Pius XII's "List of Heterodox

As noted, in 1962 Ratzinger believed one of Vatican II's presumed responsibilities was to correct the so-called "errors" of the traditional Church. One of the foremost "errors"—the only error that received special mention in his 2013 papal farewell speech—was the Church's decision against Galileo. Since Fr. Joseph Ratzinger was present at the Council in

and Modernist Theologians," such as Hans Kung, Edward Schillebeeckx, Karl Rahner, Yves Congar, Henry de Lubac and others. In place of the original half dozen schemas (which were to be discussed over only two or three sessions) the liberals produced documents at Vatican II that exceeded the length of other Councils by at least ten times and which took three years to amass. There was a method to the madness of the liberals, of course. The more verbiage in a document, the greater the chance for ambiguity and the greater the chance of sneaking one's preferred view into the document. As for *Dei Verbum* 11, the last schema out of four contained the phrase "for the sake of our salvation," which, although a lot less ambiguous than the previous three that were rejected in the voting, was eventually forced into ambiguity after Vatican II by liberals who wanted to teach Scripture was only inerrant in regards to issues of salvation, and not in history, science, chronology, genealogy, geography, *etc.* As such, the liberals inferred limited inerrancy from *Dei Verbum* 11 and produced many books explicating their view, such as, *The Jerome Biblical Commentary* (1968) and *New Jerome Biblical Commentary* (1990), the latter stating: "...of *Dei Verbum*....debates show an awareness of errors in the Bible. Thus...Scriptural teaching is truth without error to the extent that it conforms to the salvific purposes of God." (p. 1169), editors Fr. Raymond Brown, Fr. Joseph Fitzmyer and Fr. Roland Murphy. Brown deceased in 1998, but probably remains one of the most influential liberal Catholic scholars of the past fifty years. In another work he states: "In the last hundred years we have moved from an understanding wherein inspiration guaranteed that the Bible was totally inerrant to an understanding wherein inerrancy is limited to the Bible's teaching of 'that truth which God wanted put into the sacred writing for the sake of our salvation'" (*The Virginal Conception and Bodily Resurrection of Jesus*, Paulist Press, 1973, pp. 8-9). Not surprisingly, Fr. Brown not only calls into question the traditional reading of Genesis, but also raises doubts about the resurrection of Christ: ("Are we thereby perpetually committed to the notion held in times past of the biological how of that exaltation, namely a bodily resurrection?" *ibid.*, p. 12); and infallibility: ("If biblical criticism has qualified the notion of the inerrancy of the Bible, does modern historical study imply that the Roman Catholic notion of the infallibility of Church teaching also has to be qualified?" *ibid.*, p. 35); In fact, in his books and articles, Fr. Brown questions a majority of beliefs held as dogma in the Catholic Church, *e.g.*, Mary's Perpetual Virginity; the monarchical episcopate (*i.e.*, papacy); the function and identity of apostles, bishops and priests; apostolic succession; the barring of women from ordination; the Eucharist as a sacrifice; the value and authority of Tradition, *etc.* See also John M. Wynne's, *The Catholic Teaching on Scriptural Inerrancy*, 2016, pp. 55-88).

1962 and personally knew many of its major participants, his inside knowledge of what we can now call the “Galileo mentality” of Vatican II, must be taken as a reliable testimony. Due to his unique witness, it may be safe to conclude that if the prelature of 1962 had not concluded the Church of 1616 made an “error” in the Galileo case, perhaps Vatican Council II may never have happened. It is an interesting question to ponder. Whatever the case, there is no denying the gauntlet had been thrown down. Either the 1616 Church was in error for condemning Galileo or Vatican II’s liberal prelature was in error for thinking the medieval Church was in error.

Interestingly enough, when it came time for the Vatican II peretti to follow through with their plans to exonerate Galileo and apologize for the Church, the documents of Vatican II presented nothing. Apparently, those who had wished to exonerate Galileo were stymied. The only statement that even touched upon science was a short paragraph in *Gaudium et spes* saying this:

Consequently, we cannot but deplore certain habits of mind, which are sometimes found too among Christians, which do not sufficiently attend to the rightful independence of science and which, from the arguments and controversies they spark, lead many minds to conclude that faith and science are mutually opposed....The recent studies and findings of science, history and philosophy raise new questions which effect life and which demand new theological investigations.³⁶

As it stands, it appears the Holy Spirit played His part in curtailing the Church from going down the wrong path. What Ratzinger realized in 1990, namely, there was no way the Church could exonerate Galileo due to modern science’s advocacy of the ‘general principle of relativity,’ would stand in the way of anyone who desired to reject Scripture’s, tradition’s and the magisterium’s testimony on geocentrism. But the damage had already been done. By inserting ambiguous phrases in Vatican II’s

³⁶ Vatican II, *Gaudium et spes* ¶36 and ¶62. Leading up to *Gaudium et spes*, Fr. George Coyne states: “Several cultural and scientific associations (*Pax Romana*, *Union des Scientifiques Français*) and many individual scientists urged that there be a ‘solemn rehabilitation of Galileo.’ The efforts were in vain” (“The Church’s Most Recent Attempt to Dispel the Galileo Myth,” in *The Church and Galileo*, ed. Ernan McMullin, University of Notre Dame Press, p. 358).

documents, the liberals were ready to challenge every traditional interpretation that had been given to Scripture up to that time, and they would continue to use Galileo as their Poster Boy in the remainder of the twentieth century and beyond.

Adding to these breeches of protocol, six years later (1996) John Paul II made his infamous statement concerning the modern belief in evolution as being “more than a hypothesis.” At this point, popular science was not only in charge, they seemed to have put another nail into the Church’s coffin.

The upshot of this ecclesiastical history is to show that in the liberal revolution spawned after Vatican II, the presumed “defect” of the Church in its handling of the Galileo affair 350 years earlier played a large part in how the prelature and the pope viewed the universal Church overall. It was no longer considered the invincible and impregnable fortress it was in the past. A chink in the armor had been found in the case of Galileo and it seemed at the time there was no way to repair it except to admit defeat, for everyone “knew” the Earth revolved around the sun.

In this light, Archbishop Lefebvre referred frequently to the liberal revolution against Scripture as well. For liberals, Scripture is no longer considered comprehensive in its authority. The liberal byword is that Scripture is only authoritative, if that, when it “speaks about salvation,” which is the bastardized interpretation they forced on the ambiguous phrase, “for the sake of our salvation” in paragraph 11 of *Dei Verbum*.³⁷ Lefebvre writes:

³⁷ *Dei Verbum* 11 states: “The divinely revealed realities, which are contained and presented in the text of sacred Scripture, have been written down under the inspiration of the Holy Spirit. For Holy Mother Church relying on the faith of the apostolic age, accepts as sacred and canonical the books of the Old and the New Testaments, whole and entire, with all their parts, on the grounds that, written under the inspiration of the Holy Spirit (*cf.* Jn 20:31; 2Tim. 3:16; 2 Pet. 1:19-21; 3:15-16), they have God as their author, and have been handed on as such to the Church herself. To compose the sacred books, God chose certain men who, all the while he employed them in this task, made full use of their powers and faculties so that, though he acted in them and by them, it was as true authors that they consigned to writing whatever he wanted written, and no more. Since, therefore,

The Catholic liberals have undoubtedly established a revolutionary situation. Here is what we read in the book written by one of them, Monsignor Prelot a senator for the Doubs region of France. “We had struggled for a century and a half to bring our opinions to prevail within the Church and had not succeeded. Finally, there came Vatican II and we triumphed. From then on the propositions and principles of liberal catholicism have been definitively and officially accepted by Holy Church.”³⁸

And the books of Holy Writ? For the modernists, they are “the record of experiences undergone in a given religion.” God speaks through these books, but He is the God who is within us. The books are inspired rather as one speaks of poetic inspiration; inspiration is likened to the urgent need felt by the believer to communicate his faith in writing. The Bible is human work.

In Pierres Vivantes the children are told that Genesis is “a poem” written once upon a time by believers who “had reflected”. This compilation, imposed on all catechism children by the French episcopate, exhales modernism on nearly every page.³⁹

But do not imagine that...they have an unlimited respect for the inspired text. They even dispute that it is inspired in its entirety: “What is there in the Gospel which is inspired? Only the truths that are necessary for our salvation.” In consequence, the miracles, the accounts of the Holy Childhood, the actions and conduct of Our Lord are relegated to the category of more or less legendary biography. We fought in the Council over that phrase: “Only the truths necessary for salvation.” There were some bishops in favour of reducing the historical authenticity of the Gospels, which shows the extent to which the clergy is corrupted by neo-Modernism. Catholics should not allow themselves to be imposed upon: the whole of the Gospel is inspired and

all that the inspired authors, or sacred writers, affirm should be regarded as affirmed by the Holy Spirit, we must acknowledge that the books of Scripture, firmly, faithfully and without error, teach that truth which God, for the sake of our salvation, wished to see confided to the Sacred Scriptures. Thus ‘all Scripture is inspired by God, and profitable for teaching, for reproof, for correction and for training in righteousness, so that the man of God may be complete, equipped for every good work’ (2 Tim. 3:16-17, Gk text).” (Flannery edition, pp. 756-757).

³⁸ *Open Letter to Confused Catholics*, p. 106.

³⁹ *Ibid.*, pp. 126-128.

those who wrote it had the Holy Spirit guiding their intelligence, so that the whole of it is the Word of God, Verbum Dei. It is not permissible to pick and choose and to say today: “We will take this part but we don't want that part.” To choose is to be a heretic, according to the Greek derivation of that word.⁴⁰

Lefebvre also spoke about how the liberals disregarded the tradition and philosophy of historic Catholicism:

In this respect, the Modernists have got what they wanted and more. In what passes for seminaries, they teach anthropology, psychoanalysis and Marx in place of St. Thomas Aquinas. The principles of Thomist philosophy are rejected in favour of vague systems which themselves recognise their inability to explain the economy of the Universe, putting forward as they do the philosophy of the absurd. One latter-day revolutionary, a muddle-headed priest much heeded by intellectuals, who put sex at the heart of everything, was bold enough to declare at public meetings: “The scientific hypotheses of the ancients were pure nonsense and it is on such nonsense that St Thomas and Origen based their systems.” Immediately afterwards, he fell into the absurdity of defining life as “an evolutionary chain of biologically inexplicable facts.” How can he know that, if it is inexplicable? How, I would add, can a priest discard the only real explanation, which is God?⁴¹

But what is Tradition?...Tradition does not consist of the customs inherited from the past and preserved out of loyalty to the past even where there are no clear reasons for them. Tradition is defined as the Deposit of Faith transmitted by the Magisterium down through the centuries. This deposit is what has been given to us by Revelation; that is to say, the Word of God entrusted to the Apostles and transmitted unfaithfully by their successors.

But now they want to get everyone inquiring, searching, as if we had not been given the Creed, or as if Our Lord had not come to bring us the Truth once and for all. What do they claim to discover with all this enquiry?

Catholics upon whom they would impose these “questionings,” after having made them “abandon their certainties,” should remember this:

⁴⁰ *Ibid.*, p. 132.

⁴¹ *Ibid.*, p. 130.

the deposit of Revelation concluded at the death of the last Apostle. It is finished and it cannot be touched until the end of time. Revelation is irreformable. The First Vatican Council restated this explicitly: “for the doctrine of faith which God has revealed has not been proposed, like a philosophical invention, to be perfected by human ingenuity; but has been delivered as a divine deposit to the Spouse of Christ (the Church) to be faithfully kept and infallibly declared....We cannot bring anything new into this field, we cannot add a single dogma, but only express those that exist ever more clearly, more beautifully and more loftily.”⁴²

The argument that is pressed upon the terrorised faithful is this: “You are clinging to the past, you are being nostalgic; live in your own time!” Some are abashed and do not know what to reply. Nevertheless, the answer is easy: In this there is no past or present or future. Truth belongs to all times, it is eternal.

In order to break down Tradition they confront it with Holy Scripture, after the manner of the [liberal] Protestants, with the assertion the Gospel is the only book that counts. But Tradition came before the Gospel!⁴³

All the Dogmatic Councils have given us the exact expression of Tradition, the exact expression of what the Apostles taught. Tradition is irreformable. One can never change the decrees of the Council of Trent, because they are infallible, written and published by an official act of the Church, unlike those of Vatican II, which pronouncements are not infallible because the popes did not wish to commit their infallibility. Therefore nobody can say to you, “You are clinging to the past, you have stayed with the Council of Trent.” For the Council of Trent is not the past! Tradition is clothed with a timeless character, adapted to all times and all places.⁴⁴

The liberal Catholic is two-sided; he is in a state of continual contradiction. He would like to remain a Catholic but he is possessed by a desire to please the world.⁴⁵

⁴² *Ibid.*, pp. 130-131.

⁴³ *Ibid.*, p. 132.

⁴⁴ *Ibid.*, p. 133.

⁴⁵ *Ibid.*, p. 154.

Do not let yourself be taken in, dear readers, by the term “traditionalist” which they would have people understand in a bad sense. In a way, it is a pleonasm because I cannot see who can be a Catholic without being a traditionalist.⁴⁶

It is my contention that Fr. Robinson, insofar as he represents the SSPX, has abandoned the aforementioned teachings on Scripture, Tradition and the Magisterium that Archbishop Lefebvre left to the SSPX. As his book outlines, the escape route Fr. Robinson uses to make his departure from tradition is his “reason,” that is, he has reasoned—through what he understands to be the “truths” of science—that he cannot hold Scripture as an authority on science or history; nor can he accept the Fathers and their consensus on these issues; and he has the right, through the same reason, to ignore what the medieval Magisterium decreed on these same issues. In this regard, it appears he is little different than the liberals coming out of Vatican II.

Let me make it clear, however, that I am not singling out Fr. Robinson either because he is from the SSPX or because I am not. Rather, since Fr. Robinson decided to publish a rather lengthy book on his views and, from my personal experience with him, he is rather obstinate in being challenged on those views, he becomes somewhat of a Poster Boy for all those in the Catholic Church today who have abandoned the Church’s traditional interpretation of the Bible in favor of current scientific theories (the Big Bang, long-ages, evolution, heliocentrism, uniformitarianism, radiometry, sedimentology, *etc.*). Since he seems to speak for the majority of them, it is to him the mantle rests, and he will be dealt with accordingly in this book.

In another light, although this book is a detailed and comprehensive critique of Fr. Robinson’s book, I want to say upfront that my critique is not a total dismissal of his book. Indeed, Fr. Robinson has many good things to say. For example, the first part of the book, Chapters 1 through 6, covers the area of philosophy quite well. It is one of the better books I’ve read that explains the ins and outs of philosophy in layman’s language. Fr. Robinson tackles some tough knots in epistemology and shows his reader

⁴⁶ *Ibid.*, p. 166.

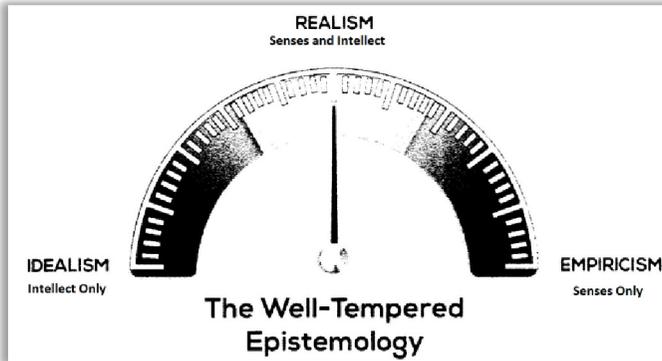
how to work through them. His treatment of how Aquinas improved on Aristotle is excellent. His treatment of Newton, Kant, Krauss and many other scientists and philosophers is also excellent.

Unfortunately, in certain places from Chapters 7 through 11, Fr. Robinson fails to follow through with the very principles he outlined in Chapters 1 through 6. I will be focusing my critique on Chapter 7, and adding a few issues from Chapters 8-11, since these are the parts of the book, as the proverbial saying goes, ‘where the rubber meets the road.’ In particular, Fr. Robinson’s advocacy of...

- the Big Bang theory (as opposed to the universe being created by divine fiat wherein the Earth was created before the stars and galaxies);
- the belief the Earth is very old and had to develop over billions of years to be hospitable to biological life (as opposed to the Earth being developed by divine fiat over six days, including the creation of biological life);
- the concept of progressive creationism wherein God intermittently helps creation over its billions of years of development (as opposed to the everything in the universe being created at once in its mature and complete form);
- the teaching of heliocentrism that the Earth revolves around the sun (as opposed to geocentrism in which the universe, including the stars and the sun, rotate daily around a fixed Earth);
- the belief that Genesis 1 has nothing of reality or significance to say about the origins of the world; and that the only thing that can be gleaned from it is the general fact that God created the world.

Like most authors writing about more esoteric topics in which there are various and sundry opinions, Fr. Robinson has good points, mediocre points and bad points. And like all authors wishing to establish their particular view as both correct and the norm to be followed, Fr. Robinson does his best to place himself in that very position. He does so rather graphically by using, for lack of a better name, his “Robinson meter,” an actual gauge that one would see, for example, on the instrument panel of a

car. This gauge is sprinkled throughout the book whenever a new topic comes up for discussion.



As we know, a temperature gauge will register if the car is too cold or too hot. Since the temperature needs to be between the two extremes to run properly, so Fr. Robinson believes that his approach to religion and science puts him in the middle of two extremes. Essentially, whatever topic is at issue, Fr. Robinson will invariably point out the two extremes to be avoided, with Fr. Robinson taking the middle position and thereby implying that he has the correct position.

Although this methodology can sometimes be helpful and educational, at other times it can be very misleading because it is often too easy for the author to so construct the meter to make his position look balanced when, in fact, it might be just as wrong as the extremes. We will see this especially when Fr. Robinson gives his so-called “middle” position to the scientific evidence concerning cosmology and cosmogony, as well as how we should view and interpret Scripture.

After all is said and done, the reader is invited to join Fr. Robinson’s perfect world of ‘reason’ and all the reader’s concerns about how to integrate religion with science will have been solved. Unfortunately for both Fr. Robinson and the reader, life is not always, and hardly ever, that simple, neither in science nor religion.

At times, Fr. Robinson also has a rather generalized way of classifying and ultimately dismissing his opponent’s view. If he finds that his opponent is

at odds with him, he will often denounce the opponent's view as a product of his "worldview," without really addressing the opponent's specific arguments. Fr. Robinson's use of "worldview" appears dozens of times in his book. One particularly lucid explanation appears rather late in the book:

At the end of the day, sense data does not speak for itself. It needs a mind to interpret it and, in the case of scientists, to construct a mathematical model to fit it. Moreover, the way that this mind or that mind will read into the data depends on many more factors than their education and intellectual ability. Indeed, one of the most important of those extra factors is the worldview by which the scientist as *person* tends to regard the whole of reality.⁴⁷

Later in the same chapter he adds:

*The key pattern that will develop in the course of the analysis is that atheistic scientists, in order to cling to their worldview, are ineluctably led to remove intelligibility from the universe. They attack reason instead of changing their faith.*⁴⁸

Although this is often true of atheists, by the same token, the temptation for Christians is to think that because they believe in God and have faith, they are immune, to one degree or another, from the same "worldview" bias when they look at the sensible data. Often a modern Christian who has accepted, for example, the theory of evolution yet wishes to maintain his faith in God (and perhaps his teaching position at a secular school!) will find himself changing his faith in the Bible rather than critiquing his "reasoning" that led him to believe evolution (or some other scientific theory) is correct. Although "atheistic scientists" often attack reason instead of admitting their own lack of faith, there are other instances in which Fr. Robinson is guilty of attacking the Bible, the faith, and the tradition due to his idiosyncratic reasoning process that compels him to accept a certain scientific theory as true (e.g., the Big Bang; billions of years of existence; heliocentrism, a local flood in Genesis) without having any solid proof it is true.

⁴⁷ *Op. cit.*, p. 355, emphasis in the original.

⁴⁸ *Op. cit.*, p. 356, emphasis in the original.

In all cases Fr. Robinson insists he has the best “worldview” from which to examine both religion and science; and unless your worldview fits into his paradigm, he concludes there is something fundamentally wrong with how you view things in particular or in general. Instead of getting into a deep discussion with his opponent about a particular point to determine who is seeing things rightly or wrongly, Fr. Robinson will often dismiss himself from the discussion table claiming that the opponent’s “worldview” is simply not worth addressing. Perhaps this methodology might work in some cases, such as when we are dealing with a politically motivated or mentally unstable person, but I can’t imagine Jesus with the Pharisees or St. Paul with the Judaizers saying to one of their opponents: “I’m sorry, but I can’t engage with you on this issue because, quite simply, your worldview is all wrong.” Both Jesus and Paul would deal both with the opponent’s worldview and with his specific objections. Added to this is the fact that Fr. Robinson has his own intellectual and social peccadilloes that muddy the waters when issues of great importance are being discussed.

NB: As we delve into the issues of modern science today, here is a short list, in no specific order, of scientific theories (mainly concerning physics and astronomy) that I consider either outrightly false, partially false, incomplete, not able to answer all phenomena in its purview, or has no empirical evidence to support it:

- **BIG BANG**
- **INFLATION**
- **EXPANDING UNIVERSE**
- **MULTIVERSE THEORY**
- **DARK ENERGY**
- **DARK MATTER**
- **EVOLUTION**
- **PROGRESSIVE CREATIONISM**

- THEISTIC EVOLUTION
- HELIOCENTRISM
- ACENTRISM
- SPECIAL RELATIVITY
- LORENTZ CONTRACTION
- TIME DILATION
- CONSTANT LIGHT SPEED
- GENERAL RELATIVITY
- SPEED OF GRAVITY LIMITED TO c
- GRAVITATIONAL WAVES
- NEWTONIAN PHYSICS
- MACHIAN PHYSICS
- QUANTUM MECHANICS
- STRING THEORY
- SUPERSTRING THEORY
- ALIEN LIFE
- NOACHIC LOCAL FLOOD
- THE DOCUMENTARY HYPOTHESIS
- A FLAT EARTH
- FIRMAMENT AS A DOME
- SPACE AS "NOTHING"

CHAPTER 2

MODERN SCIENCE IN CRITICAL PERSPECTIVE

Today, science lives in the aura of being a monolithic consensus of truth and impartiality. Unfortunately, this is at best an exaggeration, and often it is simply untrue. Science, like any other endeavor of man, is subject to the weal or woe of human participation and its common foibles. As science walks in the precarious halls of trial and error, it is, contrary to popular opinion, particularly prone to mistaken notions. As scientist Lewis Thomas (d. 1993) confided:

Science is founded on uncertainty....We are always, as it turns out, fundamentally wrong....The only solid piece of scientific truth about which I feel totally confident is that we are profoundly ignorant about nature....It is this sudden confrontation with the depth and scope of ignorance that represents the most significant contribution of twentieth-century science to the human intellect.⁴⁹

The principle discoveries in this century, taking all in all, are the glimpses of the depth of our ignorance about nature. Things that used to seem clear and rational, matters of absolute certainty – Newtonian mechanics for example – have slipped through our fingers, and we are left with a new set of gigantic puzzles, cosmic uncertainties, ambiguities. Some of the laws of physics require footnotes every few years, some are cancelled outright, some undergo revised versions of legislative intent like acts of Congress.

On any Tuesday morning, if asked, a good working scientist will tell you with some self-satisfaction that the affairs of his field are nicely in order, that things are finally looking clear and making sense, and all is well. But come back again on another Tuesday, and the roof may have just fallen in on his life's work. In real life, every field of science is incomplete, and most of them – whatever the record of accomplishment during the last 200 years – are still in their very earliest stages.⁵⁰

⁴⁹ Lewis Thomas, "On Science and Certainty," *Discover*, Oct. 1980, p. 58.

⁵⁰ Lewis Thomas, "Making Science Work," *Discover*, March 1981, p. 88.

Karl Popper, one of the more respected secular philosophers, issued major critiques throughout his life on the industry of science. He writes:

The title of this lecture is likely, I fear, to offend some critical ears. For although ‘Sources of Knowledge’ is in order, and ‘Sources of Error’ would have been in order too.

For us therefore, science has nothing to do with the quest for certainty or probability or reliability. We are not interested in establishing scientific theories as secure or certain, or probable....It can even be shown that all theories, including the best, have the same probability, namely zero....the realization that our attempts to see and to find the truth are not final, but open to improvement; that our knowledge, our doctrine, is conjectural; that it consists of guesses, of hypotheses rather than of final and certain truths.⁵¹

Since most people are not familiar with the intricacies of research and discovery, the doctrines concerning the mechanical workings of the universe are inevitably left to what modern society has come to know as “the scientist.” Today, those with credentials in theology, or even philosophy, are invariably ignored when the crucial decisions are made regarding what will be taught in the universities. The sad truth is that an inordinate number of scientists are employed for their own selfish interests, and never consider, much less seek, an authority above themselves. Statistics reveal just how bad it has become. *Scientific American* carried an article a few years ago on the work of James H. Leuba, a statistician who both in 1914 and 1933 surveyed the religious beliefs of American biological and physical scientists of their views on two fundamental beliefs in Christianity: (1) the worship of God and (2) the existence of an afterlife. This study was important to Leuba since, as he said, “scientists enjoy great influence in the modern world, even in matters religious.”⁵² At first glance, Leuba’s results seem somewhat reassuring. Among a general cross section of scientists, he found that 40% believed in God. But then he concentrated on the more elite scientists, those whose names are in the newspapers, who write the major books and articles, and

⁵¹ Karl Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge*, 1963, 1965, pp. 3, 229, 192, 151.

⁵² “Scientists and Religion in America,” Edward J. Larson and Larry Witham, *Scientific American*, Sept. 1999, p. 89.

who have the most influence on what the public believes. He found that an astonishing “80 percent of top natural scientists rejected both cardinal beliefs of traditional Christianity.” *Scientific American* then did its own study and found even worse results. Using the 1,800 members of the 1998 *National Academy of Sciences* as its measure of who comprised the “elite scientists” of the day, the editors found that:

Disbelief among NAS members responding to our survey exceeded 90 percent....NAS biologists are the most skeptical, with 95 percent of our respondents evincing atheism and agnosticism. Mathematicians in the NAS are more accepting: one in every six of them [17%] expressed belief in a personal God.⁵³

Commenting further, the article shows that atheism is encouraged in academic circles, and those who have any Christian beliefs are quietly suppressed:

University of Washington sociologist Rodney Stark...points out, “There’s been 200 years of marketing that if you want to be a scientific person you’ve got to keep your mind free of the fetters of religion.”...higher education on the whole winnows out the idea of God or people who hold it. In research universities, “the religious people keep their mouths shut,” Stark says. “And the irreligious people discriminate. There’s a reward system to being irreligious in the upper echelons.”⁵⁴

The reasons for this rampant atheism are then discovered:

Legendary evolutionary biologist Ernst Mayr, an NAS member since 1954, made a study of disbelief among his Harvard University colleagues in the academy. “It turned out we were all atheists,” he recalls. “I found that there were two sources.” One Mayr typified as, “Oh, I became an atheist very early. I just couldn’t believe all that supernatural stuff.” But others told him, “I just couldn’t believe that there could be a God with all this evil in the world.” Mayr adds, “Most

⁵³ *Ibid.*, p. 90.

⁵⁴ *Ibid.*, p. 91.

atheists combine the two. This combination makes it impossible to believe in God.”⁵⁵

How ironic is it that atheistic men are using religious and moral principles to judge whether God exists. With the audacity of a woman of the night, they dare blame God for the evil in the world.⁵⁶ Scripture has quite a different scenario, of course. It solemnly testifies that God blames man for the evil in the world. As Genesis 6:5-6 laments before the Great Flood:

The Lord saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually. And the Lord was sorry that he had made man on the earth, and it grieved him to his heart.

Although there are many examples of atheist-driven scientific agendas in the halls of modern science today, one person who particularly fills that description in the field of cosmology is the late Carl Sagan (d. 1996). One of the first exposures a novice has to the godless world of Sagan is this sad statement ascribed to one of his characters in his novel, *Contact*:

All this speaks of incompetence. If God didn't want Lot's wife to look back, why didn't he make her obedient, so she'd do what her husband told her? Of if he [God] hadn't made Lot such a s---head [expletive deleted], maybe she would've listened to him more.

If God is omnipotent and omniscient, why didn't he start the universe out in the first place so it would come out the way he wants? Why's he constantly repairing and complaining? No, there's one thing the Bible makes clear: The biblical God is a sloppy manufacturer. He's not good at design, he's not good at execution. He'd be out of business if there was any competition.⁵⁷

Autonomy was Sagan's gospel. As he himself stated: “First: there are no sacred truths...arguments from authority are worthless,”⁵⁸ and in the context Sagan is referring to religious authority. In other places he creates

⁵⁵ *Ibid.*, p. 91.

⁵⁶ Proverbs 30:20: “Such is the way of an adulterous woman: she eats, wipes her mouth, and says, ‘I have done no wrong.’”

⁵⁷ Spoken by the character Sol Hadden in Sagan's *Contact*, 1985, 1997, p. 285.

⁵⁸ Carl Sagan, *Cosmos*, 1980, p. 333, and *Broca's Brain*, 1979, p. 62.

fear and resentment against religious authority, portraying it as vicious ogre who is not interested in truth or even discussion. He writes:

It took the Church until 1832 to remove Galileo's work from its list of books which Catholics were forbidden to read....The high water mark in recent history is the 1864 *Syllabus of Errors* of Pius IX, the pope who also convened the Vatican Council at which the doctrine of papal infallibility was, at his insistence, first proclaimed....But surely the Inquisition ushering in the elderly and infirm Galileo in to inspect the instruments of torture in the dungeons of the Church not only admits but requires just such an interpretation. This was not mere scientific caution and restraint, a reluctance to shift a paradigm until compelling evidence, such as the annual parallax, was available. This was fear of discussion and debate. Censoring alternative views and threatening to torture their proponents betray a lack of faith in the very doctrine and parishioners that are ostensibly being protected.⁵⁹

In place of traditional religion, science has become a religion in its own right. In essence, it has been turned from science to *Scientism*. Its advocates preach its subjective beliefs just as strongly as any modern gospel evangelist. Whereas in the past the Church was the supreme authority, *Scientism* has no peer today. As it seeks converts it presents as its foundation stone the Copernican revolution. In the words of Gunther Stent, a biologist at Berkeley:

In the wake of the publication of Darwin's *On the Origin of Species*, the idea of progress was raised to the level of a scientific religion....This optimistic view came to be so widely embraced in the industrialized nations...that the claim that progress could presently come to an end is now widely regarded as outlandish a notion as was in earlier times the claim that the Earth moves around the sun.⁶⁰

The public, who is pacified by cell phones, antibiotics, jet planes, and computers, will rarely challenge the claims of modern science or attempt to upset the *status quo*, since whatever problems science may have, still, it makes our lives more comfortable than those who lived in the medieval era. But the sad fact is, except for a few basic ideas, today's science is very

⁵⁹ *Pale Blue Dot*, pp. 40-41.

⁶⁰ G. Stent, *The Paradoxes of Progress*, 1978, p. 27.

confused and it is at a loss to explain most of what it observes in nature, especially in the areas of cosmology and cosmogony. In most cases it is completely on the wrong track. As John Horgan notes:

...sometimes the clearest science writing is the most dishonest...Much of modern cosmology, particularly those aspects inspired by unified theories of particle physics and other esoteric ideas, is preposterous. Or, rather, it is ironic science, science that is not experimentally testable or resolvable even in principle and therefore is not science in the strict sense at all. Its primary function is to keep us awestruck before the mystery of the cosmos.⁶¹

The universe is so complex and so bewildering that honest scientists are only too willing to admit that the more data that scientific instruments attain, the more difficult becomes the task to make sense of it all. As astronomer Fred Hoyle summed it up: “The whole history of science shows that each generation finds the universe to be stranger than the preceding generation ever conceived it to be.”⁶² Biologist J. B. S. Haldane quipped: “The universe is not only queerer than we supposed, but queerer than we can suppose.”⁶³ In brief, knowledge is abundant; but proper interpretation of the knowledge is severely lacking. Astronomer Halton Arp reminds us: “Really all we have for data in astronomy is photons as a function of x and y and frequency. The challenging puzzle is then to try to reason out how nature works,”⁶⁴ and that, indeed, is a very difficult task without the proper guidance.

THE GUARDIANS AT THE GATE OF KNOWLEDGE

Unfortunately, as scientists placate the populace with creature comforts they, in turn, have enjoyed the god-like status they have attained in the eyes of the adoring public. But the real truth is that today’s gods of science

⁶¹ John Horgan, *The End of Science: Facing the Limits of Knowledge in the Twilight of the Scientific Age*, 1997, pp. 93-94.

⁶² Fred Hoyle, *Astronomy and Cosmology*, San Francisco, 1975, p. 48. Interestingly enough, Hoyle makes the comment in a context concerning whether the heliocentric or geocentric system is the correct model.

⁶³ Attributed, not verified.

⁶⁴ Halton Arp, *Seeing Red: Redshifts, Cosmology and Academic Science*, 1998, p. 208.

fight amongst themselves just like the mythical gods of ancient Greece or Rome because, when all is said and done, they are certain of very little of what is going on in the universe. They have lots of information but no solid interpretation. Everyone has an assortment of facts. But correct interpretation is the key to truth, and most scientists fail at this point. The universe is simply too complex for their tiny theories.

Nevertheless, since modern science began on the coattails of Nicholas Copernicus, anyone who even attempts to challenge the status quo is immediately classified in the fringe category; someone who spends his day donning an aluminum foil hat waiting for messages from outer space. Whatever their reasons, most scientists and laymen will simply not consider anything beyond what Copernicus taught. If one should dare to persist and challenge them, they will not hesitate to become abusive. Thomas Kuhn observes:

During the century and a half following Galileo's death in 1642, a belief in the Earth-centered universe was gradually transformed from an essential sign of sanity to an index, first, of inflexible conservatism, then of excessive parochialism, and finally of complete fanaticism. By the middle of the seventeenth century it is difficult to find an important astronomer who is not Copernican; by the end of the century it is impossible...⁶⁵

Or as Lakatos notes:

The Ptolemaists did their thing and the Copernicans did theirs and at the end the Copernicans scored a propaganda victory....Therefore the acceptance of the Copernican theory becomes a matter of metaphysical belief.⁶⁶

But it still remains true that people are set free by truth. Falsehoods keep them in darkness and force them to live in an illusion, under oppression, ultimately destroying them. Fortunately, man is blessed with an innate desire to find the truth, put there by his Creator. Often this desire is

⁶⁵ Kuhn, *The Copernican Revolution*, 1959, p. 227.

⁶⁶ Imre Lakatos and Elie Zahar, "Why Did Copernicus' Research Program Supersede Ptolemy's," *The Copernican Achievement*, ed. Robert S. Westman, 1975, p. 367.

difficult to satisfy because various ideologues of the world have a vested interest in keeping the rest of the human race in ignorance in order to advance their own agnostic or atheistic agenda, while casting aspersions on those who reject their godless worldview. But who, in fact, are the real fringe cases? Are they people who have put their trust in divine revelation and the corroborating evidence from science, or are they people like Carl Sagan who espouse such celestial gods as...

We are the local embodiment of a Cosmos grown to self-awareness. We have begun to contemplate our origins. We are star-stuff pondering the stars! Our ancestors worshipped the Sun, and they were not that foolish. It makes sense to revere the Sun and the stars, for we are their children.⁶⁷

As the rock icon Joni Mitchell sang:

I came upon a child of God / He was walking along the road / And I asked him, where are you going / And this he told me... / We are stardust, billion-year-old carbon. / We are golden / Caught in the devil's bargain/ And we've got to get ourselves back to the garden.⁶⁸

Raising Mitchell's words to a secular sacrament, the Vatican's liberal-minded astronomer, Fr. George V. Coyne, S.J., said much the same in a recent interview:

There is no other way...to have the abundance of carbon necessary to make a toenail than through the thermonuclear processes in stars. We are all literally born of stardust.⁶⁹

Indeed, the same mentality was present among our ancestors who worshiped the stars as their creator. As the Old Testament records:

All men are vain, in whom there is not the knowledge of God: and who by these good things that are seen, could not understand Him that is, neither by attending to the works have acknowledged who was the

⁶⁷ Carl Sagan, *Cosmos*, 1980, p. 243. Suffice it to say, stellar "thermonuclear process" is an unproven science, and is now facing considerable contradictions from Plasma cosmology.

⁶⁸ Woodstock, 1969.

⁶⁹ *The Catholic Review*, Baltimore, 8-18-2005, p. A32.

workman: But have imagined either the fire, or the wind, or the swift air, or the circle of the stars, or the great water, or the sun and moon, to be the gods that rule the world. With whose beauty, if they, being delighted, took them to be gods: let them know how much the Lord of them is more beautiful than they: for the first author of beauty made all those things. Or if they admired their power, and their effects, let them understand by them, that He that made them, is mightier than they: For by the greatness of the beauty, and of the creature, the Creator of them may be seen, so as to be known thereby.⁷⁰

Coming from the same atheistic background, former cabinet member of the Clinton administration, Robert Reich, knows who the real combatants are. In one article he stated:

The great conflict of the 21st century will not be between the West and terrorism. Terrorism is a tactic, not a belief. The true battle will be between modern civilization and anti-modernists; between those who believe in the primacy of the individual and those who believe that human beings owe their allegiance and identity to a higher authority; between those who give priority to life in this world and those who believe that human life is mere preparation for an existence beyond life; between those who believe in science, reason, and logic and those who believe that truth is revealed through Scripture and religious dogma.⁷¹

Reich, of course, is on the side of the modernists, the individualists, and the here-and-now autonomous logicians. In short, those who believe in God are Reich's enemies.

Why do men succumb to such alternatives when they know the path of truth and goodness? Scripture calls it "the *mystery* of iniquity," and, seeing how many terrible consequences men suffer because of their evil, to witness their continual denial of God is, indeed, a great mystery. Modern man seems to do whatever he can to make himself god-like so as to push the true God off the stage. In no better place is this evident than in modern man's cosmological theories. With a whisk of his mathematical wand, he, like God, can create any universe of his choosing. As astrophysicist Gerard de Vaucouleurs put it:

⁷⁰ Wisdom 13:1-5 (RSV).

⁷¹ Robert Reich, "The Last Word," *The American Prospect*, July 1, 2004.

Less than 50 years after the birth of what we are pleased to call “modern cosmology,” when so few empirical facts are passably well established, when so many different over-simplified models of the universe are still competing for attention, is it, may we ask, really credible to claim, or even reasonable to hope, that we are presently close to a definitive solution of the cosmological problem?.... Unfortunately, a study of the history of cosmology reveals disturbing parallelisms between modern cosmology and medieval scholasticism; often the borderline between sophistication and sophistry, between numeration and numerology, seems very precarious indeed. Above all I am concerned by an apparent loss of contact with empirical evidence and observational facts, and, worse, by a deliberate refusal on the part of some theorists to accept such results when they appear to be in conflict with some of the present oversimplified and therefore intellectually appealing theories of the universe...doctrines that frequently seem to be more concerned with the fictitious properties of ideal (and therefore nonexistent) universes than with the actual world revealed by observations.

He adds:

With few exceptions modern theories of cosmology have come to be variations on the homogeneous, isotropic models of general relativity. Other theories are usually referred to as ‘unorthodox,’ probably as a warning to students against heresy. When inhomogeneities [NB: theories that can lead to an Earth-centered universe] are considered (if at all), they are treated as unimportant fluctuations amenable to first-order variational treatment....But if nature refuses to cooperate, or for a time remains silent, there is a serious danger that the constant repetition of what is in truth merely a set of *a priori* assumptions (however rational, plausible, or otherwise commendable) will in time become accepted dogma that the unwary may uncritically accept as established fact or as an unescapable logical requirement. There is also the danger inherent in all established dogmas that the surfacing of contrary opinion and evidence will be resisted in every way.⁷²

Much of today’s confusion is due to the spooky world of Quantum Mechanics, which hasn’t fared any better than Einstein’s Relativity in

⁷² Gerard de Vaucouleurs, “The Case for a Hierarchical Cosmology,” *Science*, v. 167, No. 3922, 1970, pp. 1203-1204.

making sense of it all. Faced with atomic particles that seem to have a mind of their own and don't obey the laws the experimenters demand from them, today's scientists have left us with some of the wildest and most fantastic speculations and theories ever concocted by grown men. As Stephen Weinberg notes, "The techniques by which we decide on the acceptance of physical theories are extremely subjective."⁷³ As for God, John Horgan writes of his interview with Weinberg: "Weinberg retorted, in effect, that he does not see why we should be interested in a God who seems so little interested in us, however good he is at geometry."⁷⁴ At the 2006 Salk Institute forum, Weinberg stated: "Anything that we scientists can do to weaken the hold of religion should be done and may in the end be our greatest contribution to civilization."⁷⁵

As *New Scientist* journalist Robert Matthews sees it:

Take quantum theory...Over the past century it has passed every single test with flying colours, with some predictions vindicated to 10 places of decimals. Not surprisingly, physicists claim quantum theory as one of their greatest triumphs. But behind their boasts lies a guilty secret: they haven't the slightest idea why the laws work, or where they come from. All their vaunted equations are just mathematical lash-ups, made out of bits and pieces from other parts of physics whose main justification is that they seem to work.⁷⁶

The newest twist for Quantum Mechanics is the "anthropic principle" wherein the complexity and fine-tuning of the universe man is explained by the fact that, by pure chance in quantum fluctuations, we humans happen to fit into this particular universe and are therefore significant in that sense only. Other universes have other rules they go by, but ours becomes what it is by our mere existence and observation of it. Such self-

⁷³ As quoted in an interview with John Horgan and cited in John Horgan, *The End of Science*, 1996, p.74.

⁷⁴ *Ibid.*, p. 77.

⁷⁵ *New York Times*, Nov. 21, 2006.

⁷⁶ Robert Matthews, *New Scientist*, Jan. 30, 1999, p. 24.

deification, to create matter *ex nihilo* like God, is the ultimate quest of modern science.⁷⁷

Much of the confusion started when Einstein made a wrong turn interpreting the Michelson-Morley experiment, and when Quantum scientists took a dangerous detour after Paul Dirac's prediction and Carl Anderson's discovery of the positron. They concluded that matter and energy could be created and destroyed. Since this interpretation, even though it produced absurd results,⁷⁸ helped save the reigning paradigm of the Standard Model, it was all kept very quiet. The inventor of this methodology was physicist Richard Feynman, but he was honest enough to admit that it was...

The shell game that we play...called 'renormalization.' But no matter how clever the word, it is what I would call a dippy process! Having to resort to such hocus pocus....I suspect that renormalization is not mathematically legitimate.⁷⁹

Asked, then, why he was awarded the Nobel Prize, Feynman replied, "We have designed a method for sweeping them under the rug."⁸⁰

⁷⁷ See this site for a brief explanation: <http://physics.about.com/od/astronomy/f/AnthropicPrinciple.htm>. John D. Barrow and Frank J. Tipler, *The Anthropic Cosmological Principle*, 1986, pp. 677f. Nick Herbert, *Quantum Reality: Beyond the New Physics: An Excursion into Metaphysics and the Meaning of Reality*, 1987, pp. 16-29. John A. Wheeler, "Bohr, Einstein, and the Strange Lesson of the Quantum," *Mind and Nature*, ed., Richard Q. Elvee, 1981, pp. 18-20. George Greenstein, *The Symbiotic Universe: Life and Mind in the Cosmos*, 1988, pp. 222-224.

⁷⁸ The mathematics of the so-called "Standard Model" of the atom has the unfortunate anomaly of producing an electron with infinite rest mass. Since by other means science has determined the rest mass to be 0.511 MeV, it requires a "renormalization" of the Standard Model's mathematics, namely, the 0.511 value is added in by hand, and no one is the wiser. This procedure is justified on the basis that "positive infinity divided by negative infinity" is an indeterminate value, and thus 0.511 is just as good as any other figure to add in (see D. L. Hotson "Dirac's Equation and the Sea of Negative Energy" *Infinite Energy*, Issue 43, 2002, p. 3).

⁷⁹ Feynman in *The Strange Theory of Light and Matter*, 1985, p. 128.

⁸⁰ James Gleick, *Genius: The Life and Science of Richard Feynman*, 1992, p. 378. Feynman's remark was not said in jest. Gleick prefaces it with: "He did make a serious remark – and repeated it all day – that reflected his inner feeling about

D. L. Hotson shows just how much “hocus pocus” is involved in these schemes:

His professors taught that conservation of mass-energy is the never-violated, rock-solid foundation of all physics. In “pair-production,” a photon of at least 1.022 MeV “creates” an electron-positron pair, each with 0.511 MeV of rest energy, with any excess being the momentum of the “created” pair. So supposedly the conservation books balance. But the “created” electron and positron both have spin (angular momentum) energy of $\hbar/4\pi$. By any assumption as to the size of electron or positron, this is far more energy than that supplied by the photon at “creation.” “Isn’t angular momentum energy?” he asked a professor. “Of course it is. This half-integer spin angular momentum is the energy needed by the electron to set up a stable standing wave around the proton. Thus it is responsible for the Pauli Exclusion principle, hence for the extension and stability of all matter. You could say it is the sole cause of the periodic table of elements.” “Then where does all this energy come from? How can the ‘created’ electron have something like sixteen times more energy than the photon that supposedly ‘created’ it? Isn’t this a huge violation of your never-violated rock-solid foundation of physics?” “We regard spin angular momentum as an ‘inherent property’ of electron and positron, not as a violation of conservation.” “But if it’s real energy, where does it come from?” “‘Inherent property’ means we don’t talk about it, and you won’t either if you want to pass this course.” Later, Mr. Hotson was taken aside and told that his “attitude” was disrupting the class, and that further, with his “attitude,” there was no chance in hell of his completing a graduate program in physics, so “save your money.” He ended up at the Sorbonne studying French literature and later became a professional land surveyor.⁸¹

renormalization. The problem had been to eliminate infinities in calculations, he said, and ‘We have designed a method for sweeping them under the rug.’ Concerning physics’ newest brainchild, String Theory, Feynman states: “I am an old man now, and these are new ideas, and they look crazy to me, and they look like they’re on the wrong track....I do feel very strongly that this is nonsense” (P. C. W. Davies and J. Brown, *Superstrings – A Theory of Everything*, Cambridge Univ. Press, 1998, pp. 193-194).

⁸¹ D. L. Hotson, “Dirac’s Equation and the Sea of Negative Energy,” *Infinite Energy*, 8, 43, 2001, p. 37.

Irrespective of the exploits of the Quantum world, in the macro-world Copernican cosmology is the *sine qua non* of the science establishment. It goes by one of two names in today's scientific literature: *The Copernican Principle* (for those who are bold enough to admit the basis for their agenda), or *The Cosmological Principle* (for those who believe Copernicus is the foundation for modern science but choose labels that are less obvious). Whatever the name, it is a fact that no other scientific hypothesis comes close to the effect that removing the Earth from the center of the universe has had upon the thinking and aspirations of mankind. Famed evolutionist, Stephen Gould, claimed that the common feature of all science is the removal of Earth from the center of the universe, and Stephen Hawking added that this removal has divested mankind of certainty, eternity, and absolutes. For Gould, "As Copernicus and Galileo dethroned the earth from the center of the universe, Darwin removed humanity from the center of nature. Gould wanted us to see how profound this was. We are an accidental little species, not yet even around for very long."⁸² This is the wonderful life, a world they have created for themselves, a world in which they can be judged by nothing bigger than themselves.

Diametrically opposed to Gould's and Hawking's doctrine, of course, is the God of Scripture. The fact that man was placed in the center of the universe is apparently a very important piece of information to reveal to us, since the opening words of Genesis begin not with a detailed description about God, but about the Earth that God created before anything else, and which was furnished several days before the other celestial bodies were placed as its surrounding adornment.⁸³ Unfortunately, men have long since forgotten Genesis, relegating it to the dustbin of myths and legends. In fact, with the coming and going of about a dozen or so cosmological theories since the time of Galileo, we will see that each one has systematically tried to eliminate the need for the Genesis Creator.

⁸² <http://newpol.org/content/stephen-jay-gould-appreciation>, by Clive Bradley, 2004.

⁸³ "In the beginning God created the heavens and the earth. The earth was without form and void, and darkness was upon the face of the deep; and the Spirit of God was moving over the face of the waters. And God said, 'Let there be light'; and there was light."

In their pursuit, however, they soon found that each cosmology proposed by their best and brightest was seriously flawed, and, by their own calculations, men were stuck with the reality that the universe had a beginning, whether they liked it or not.

Still, they try to escape the inevitable and, like Stephen Hawking, ask silly questions such as: “What place, then, for a creator?”⁸⁴ Or, they seek to convince the public with absurd tautologies like those of Carl Sagan: “A universe that is infinitely old requires no Creator.”⁸⁵ In essence, infinity has become science’s god – a cold, impersonal, and unfathomable entity that mankind can neither comprehend nor repay. Through these false gods man attempts to dethrone the true God of heaven and Earth. This quest is nothing new, of course. It was the very lie with which the devil tempted

⁸⁴ Stephen Hawking, *A Brief History of Time: From the Big Bang to Black Holes*, 1988, p. 141. In his second book Hawking expands on the idea, treating the universe as being god-like, without beginning or end: “The universe would be completely self-contained and not affected by anything outside of itself. It would neither be created nor destroyed. It would just BE. As long as we believed the universe had a beginning, the role of a creator seemed clear. But if the universe is really completely self-contained, having no boundary or edge, having neither beginning nor end, then the answer is not so obvious: what is the role of a creator?” (*A Briefer History of Time*, 2005, p. 103); later adding the naïve remarks: “Or does it need a creator, and if so, does He have any other effect on the universe? And who created Him?” (*ibid.*, p. 142). According to John Horgan: “There is no place, was his reply; a final theory would exclude God from the universe, and with him all mystery. Like Stephen Weinberg, Hawking hoped to rout mysticism, vitalism, creationism from one of their last refuges, the origin of the universe. According to one biographer, Hawking and his wife, Jane, separated in 1990 in part because she, as a devout Christian, had become increasingly offended by his atheism” (*The End of Science*, pp. 94-95). In another place Hawking wrote: “What I have done is to show that it is possible for the way the universe began to be determined by the laws of science. In that case, it would not be necessary to appeal to God to decide how the universe began. This doesn’t prove that there is no God, only that God is not necessary.” Sometimes Hawking seems to deify the universe, or attribute things to it that religion attributes to God alone. He writes: “Yet in another kind of time, the universe has no boundary. It is neither created nor destroyed. It just is....The inflation was a good thing in that it produced all the content of the universe quite literally out of nothing. When the universe was a single point, like the North Pole, it contained nothing” (*Black Holes and Baby Universes*, pp. 68, 97).

⁸⁵ Carl Sagan, *Cosmos*, 1980, p. 249. See also Sagan’s contemptuous books against religion, e.g., *Broca’s Brain*, 1979, and *Dragons of Eden*, 1977.

our first parents, saying: “God knows in the day you eat of it *you shall become as gods*, knowing good and evil.”⁸⁶

The innate desire to imitate our Creator, which God has instilled in man as a worthy goal to attain, took a terrible detour with our first parents. Failing, however, to learn from this tragic lesson, modern man, including the ecclesiastics who have bowed themselves to science’s whims through the abracadabra of “biblical criticism,” do everything they can to erase the relevance or even existence of Adam and Eve from our collective consciences, preferring instead to believe that monkeys are our uncles. Instead of bowing before Him in respect of St. Paul’s admonition that “...ever since the creation of the world, His invisible attributes of eternal power and divinity have been able to be understood and perceived in what He has made,”⁸⁷ they make silly caricatures of God and, as St. Paul forewarns us, they “worship the creation rather than the Creator,”⁸⁸ as Carl Sagan proves for us:

The idea that God is an oversized white male with a flowing beard who sits in the sky and tallies the fall of every sparrow is ludicrous. But if by God one means the set of physical laws that govern the universe, then clearly there is such a God. This God is emotionally unsatisfying. It does not make much sense to pray to the law of gravity.⁸⁹

⁸⁶ Genesis 3:5.

⁸⁷ Romans 1:20. As Immanuel Kant once noted: “Two things fill the mind with ever new and increasing wonder and awe...the starry heaven above me, and the moral law within me.”

⁸⁸ Romans 1:25.

⁸⁹ Sagan, as quoted in *U.S. News and World Report*, December 23, 1991, p. 61. Similar quotes from Sagan include: “A naïve Western view of God is an outsize, light-skinned male with a long white beard, who sits on a very large throne in the sky and tallies the fall of every sparrow” (*The Varieties of Scientific Experience*, p. 149); “If we long to believe that the stars rise and set for us, that we are the reason there is a Universe, does science do us a disservice in deflating our conceits?...For me, it is far better to grasp the Universe as it really is than to persist in delusion, however satisfying and reassuring” (Carl Sagan, *The Demon-Haunted World: Science As a Candle in the Dark*, 1996, p. 12). “In many cultures it is customary to answer that God created the universe out of nothing. But this is mere temporizing. If we wish courageously to pursue the question, we must, of course ask next where God comes from? And if we decide this to be unanswerable, why not save a step and decide that the origin of the universe is an

There is probably no better example of the dilemma of modern man than Carl Sagan. God doesn't take kindly to such remarks, however. As Scripture declares, He is never mocked.⁹⁰ Anyone with a proper understanding of God, which he can quickly glean from even a cursory reading of the narratives of Scripture, will realize that He often gives man the godless world that he wants – as punishment for ignoring Him.⁹¹ In turn, He will laugh from heaven when their calamities strike.⁹² Dr. Gould, Dr. Sagan, and Dr. Einstein, all of them now deceased, should have known these Scriptures very well, since at least those coming from the Old Testament were part of their formative years.⁹³

The bare truth is: if one acts like an animal (which is the case when men pretend God doesn't exist), then God will allow one to believe one is descended from an animal. Stephen Gould reflects this very fact when he states that we have become “large reasoning animals” and we owe this to “our lucky stars.”⁹⁴ Ironically, like pigs wallowing in the mud or dogs eating their own vomit, modern man seems all too comfortable with such demotion and degradation. He'll accept any harebrain idea as long as it allows him to escape bowing down to an Almighty Being. Alan Rauch shows us why, and, not surprisingly, it all goes back to the disdain for an Earth-centered cosmos:

Darwin's theory neatly summed up a view of the natural world that did not privilege any living thing over another. Instead, all organisms (including, by implication, humans) were subject to the physical forces

unanswerable question? Or, if we say that God has always existed, why not save a step and conclude that the universe has always existed?” (Carl Sagan, *Cosmos*, p. 257).

⁹⁰ Galatians 6:7 (“Make no mistake: God is not mocked, for a person will reap only what he sows”).

⁹¹ Cf. 2 Thess. 2:11; Rom. 1:24-31; Num. 11:18-20.

⁹² Psalm 37:13; Psalm 59:9; Proverbs 1:26; Habakkuk 1:10; Wisdom 4:18.

⁹³ Sagan writes: “...as is plainly stated at every Rosh Hashonhan and every Jewish wedding ceremony, the Universe is less than 6,000 years old” (Carl Sagan, *The Demon-Haunted World: Science as a Candle in the Dark*, p. 325). Sagan would also be familiar with the following teaching in Deuteronomy 4:19: “And beware not to lift up your eyes to heaven and see the sun and the moon and the stars, all the host of heaven, and be drawn away and worship them and serve them, those which the Lord your God has allotted to all the peoples under the whole heaven.”

⁹⁴ Stephen Gould, *Wonderful Life*, 1989, p. 318.

of nature and, of course, to each other. Combined with new perspectives on space, time, and matter, *this view removed man from centrality in the universe*. The age-old idea that man was a creature revered by nature and favored by God could no longer be professed without serious misgivings.⁹⁵

Although some scientists pay lip service to “searching for God,” in reality the quest of modern man has been a continual effort to remove God from the stage of human history. Ever since the time of Galileo, man has tried to become a god by relying on his own knowledge and effort. Unfortunately, the more he does so, the more detached he becomes and the further away he remains from becoming like God. This is the secret of life. Those who discover it are blessed, indeed. Those who refuse it will be forever mired in futility and frustration. Even DNA discoverer James D. Watson admitted:

One could not be a successful scientist without realizing that, in contrast to the popular conception supported by newspapers and mothers of scientists, a goodly number of scientists are not only narrow-minded and dull, but also just stupid.⁹⁶

In spite of this, science has become the weapon of choice for modern man in order to make himself the god of this world, answerable to no one but

⁹⁵ Alan Rauch, *Useful Knowledge: The Victorians, Morality And The March of Intellect*, 2001, p. 12, emphasis added.

⁹⁶ Unfortunately, Watson was a religious skeptic. At the age of 74 he stated that religious explanations are “myths from the past....Every time you understand something, religion becomes less likely. Only with the discovery of the double helix and the ensuing genetic revolution have we had grounds for thinking that the powers held traditionally to be the exclusive property of the gods might one day be ours.” Crick and Watson boasted that their chief goal was to “discredit the existence of God.” Francis Crick (d. 2004), recently stated: “The God hypothesis is rather discredited....Archbishop Ussher claimed the world was created in 4004 BC. Now we *know* it is 4.5 billion old. It’s astonishing to me that people continue to accept religious claims. People like myself get along perfectly well with no religious views” (*London Daily Telegraph*, cited in *The Washington Times*, 3-24-2003). But in his more somber moments Crick admitted: “The origin of life appears almost a miracle, so many are the conditions which would have had to be satisfied to get it going....Every time I write a paper on the origin of life, I swear I will never write another one, because there is too much speculation running after too few facts.”

himself. But he only deceives himself. Although he fights to suppress it, inside each man God has instilled the knowledge that he will one day face judgment for his beliefs and actions. As Sirach assures us:

Much labor was created for every man, and a heavy yoke is upon the sons of Adam, from the day they come forth from their mother's womb till the day they return to the mother of all. Their perplexities and fear of heart – their anxious thought is the day of death, from the man who sits on a splendid throne to the one who is humbled in dust and ashes, from the man who wears purple and a crown to the one who is clothed in burlap; there is anger and envy and trouble and unrest, and fear of death, and fury and strife. And when one rests upon his bed, his sleep at night confuses his mind. He gets little or no rest, and afterward in his sleep, as though he were on watch, he is troubled by the visions of his mind like one who has escaped from the battlefield; at the moment of his rescue he wakes up, and wonders that his fear came to nothing.⁹⁷

There have been three major attempts in the last five hundred years to make man's dream of removing God from the stage come true. The first was Copernicus' heliocentrism, the second was Darwin's evolution, and the third was Einstein's relativity. Modern scientists instinctively know that all three are immediately falsified if the Earth is motionless in the center of the universe. But if they are successful in dismissing that proposition as "unthinkable," these three theories will continue to rule the hearts of men like no other before them, each propped up by a pseudo-science that purports to know the real truth when in fact it knows very little. Each in its own right is a direct assault on what men previous to them believed to be true based upon a face value reading of the Old and New Testaments. As the modern scientific icon Paul Davies confirms for us:

Could this have happened without any supernatural input? Quantum physics seems to provide a loophole to the age-old assumption that "you can't get something for nothing." Physicists are now talking about "the self-creating universe": a cosmos that erupts into existence spontaneously... The question of whether the details of this theory are right or wrong are not so very important. It is now possible to conceive

⁹⁷ Sirach (Ecclesiasticus) 40:1-7.

of a scientific explanation for all creation...Has modern physics abolished God altogether?⁹⁸

The implication of Davies' statement is that modern physics has, indeed, abolished the need for God. But Davies is not alone. As we saw with Stephen Hawking's "what place, then, for a creator?" this convenient '*sine Deo et ex nihilo*' universe is a common belief among today's cosmologists.⁹⁹ Being a little more honest about modern cosmology's naked emperor, astrophysicist Andrei Linde revealed why many have been forced to the absurd "something from nothing" position:

The first, and main, problem is the very existence of the Big Bang. One may wonder, What came before? If space-time did not exist then, how could everything appear from nothing? What arose first: the universe or the laws determining its evolution? Explaining this initial singularity – where and when it all began – still remains the most intractable problem of modern cosmology.¹⁰⁰

A few physicists tried to answer the question. In 1973 Edward P. Tryon fired the first shot: "I proposed that our Universe had been created spontaneously from nothing, as a result of the established principles of

⁹⁸ Paul Davies, *God and the New Physics*, 1983, p. viii. In two letters sent to me, dated August 8-9, 2004, Davies confirmed my assessment of his views, stating: "In a nutshell, I have always argued against invoking any sort of God to create the universe in the big bang. I think physics can explain the big bang without supernatural input. The correct place to locate God-questions is in the laws of physics, not the initial conditions....I have long argued against the notion of any sort of God who resides within time, and who preceded the universe...The classical Christian doctrine of creation "ex nihilo" does NOT mean that God created the world at some moment in time as a temporal act. This is a mis-reading of classical theology" (Letters on file). Ralph Estling states that he also contacted Davies about this question. Estling writes: "I've had correspondence with Paul Davies on cosmological theory...I asked him what he meant by 'Nothing.' He wrote back that he had asked Alexander Vilenkin...and Vilenkin had replied, 'By Nothing I mean Nothing'" (*Skeptical Inquirer*, January/February, 1995, pp. 69-70).

⁹⁹ Meaning: "Without God and out of nothing."

¹⁰⁰ Andrei Linde, "The Self-Producing Inflationary Universe," *Scientific American*, Magnificent Cosmos, 1998, p. 99.

physics.”¹⁰¹ Alan Guth of M.I.T. and Paul Steinhardt of Princeton followed in 1984 with an article stating:

The inflationary model of the universe provides a possible mechanism by which the observed universe could have evolved from an infinitesimal region. It is then tempting to go one step further and speculate that the entire universe evolved from literally nothing.¹⁰²

More Big Bang theorists jumped on the bandwagon. Physicist John Gribbin followed two years later with these words: “the new models are based on the concept that particles can be created out of nothing at all...matter might suddenly appear in large quantities.”¹⁰³ Victor Stenger adds: “What caused it? Not everything requires a cause. It could have just happened spontaneously...”¹⁰⁴ which led scientific satirist Terry Pratchett to conclude: “The current state of knowledge can be summarized thus: In the beginning, there was nothing, which exploded.”¹⁰⁵ Or as Lynda Williams, professional entertainer and physics teacher at San Francisco State University, sang in her latest ‘Cosmic Cabaret’: “In the beginning, there was nothing” she whispers, and then “BIG BANG!” she screams.¹⁰⁶

¹⁰¹ Edward P. Tryon, “What Made the World?” *New Scientist*, March 1984, p. 15. In another work he stated: “Our universe is simply one of those things which happen from time to time” (“Is the Universe a Vacuum Fluctuation?” *Nature*, 246, December 1973, pp. 396-397).

¹⁰² Alan Guth and Paul Steinhardt, “The Inflationary Universe,” *Scientific American*, May 1984, p. 128. To Guth, David Berlinski replied: “Thus, Alan Guth writes in pleased astonishment that the universe really did arise from ‘essentially nothing at all’...It would appear, then, that ‘essentially nothing’ has both spatial extension and mass. While these facts may strike Guth as inconspicuous, others may suspect that nothingness, like death, is not a matter that admits of degrees” (Was There a Big Bang?” *Commentary*, February 1998, p. 37). Berlinski is a member of the Discovery Institute and a Ph.D. in philosophy from Princeton.

¹⁰³ John Gribbin, “Cosmologists Move Beyond the Big Bang,” *New Scientist*, 110, No. 1511, 1986, p. 30.

¹⁰⁴ Victor Stenger, “Was the Universe Created,” *Free Inquiry* 7, 3, Summer, 1987, p. 26. Stenger was a physicist at the University of Hawaii. In a later publication, Stenger added: “The Universe revealed by science shows humanity as an infinitesimal speck in space and time with random chance as an important factor affecting events” (*Free Inquiry* 23, September 2003, p. 40).

¹⁰⁵ Terry Pratchett, *Lords and Ladies*, 1996, p. 7.

¹⁰⁶ Philip and Phylis Morrison, “The Big Bang: Wit or Wisdom?” *Scientific American*, February 2001, p. 93. (*ibid.*, p. 95).

After giving a short history of the repertoire of cosmological theories that have all been overturned, the Morrison's add:

We simply do not know our cosmic origins; intriguing alternatives abound, but none yet compel. We do not know the details of inflation, nor what came before, nor the nature of the dark, unseen material, nor the nature of the repulsive forces that dilute gravity. The book of the cosmos is still open. Note carefully: we no longer see a Big Bang as a direct solution. Inflation erases evidence of past space, time and matter. The beginning – if any – is still unread. It is deceptive to maintain so long the very term that stood for a beginning out of nothing. The chanteuse will compose a clever new song once the case is clear.¹⁰⁷

The *New York Times* concluded: “The only thing that all the experts agree on is that no idea works – yet.”¹⁰⁸

Linde also reveals five other problems with the traditional Big Bang theory. To overcome these, Linde posits that “energy in the scalar field” and “quantum fluctuations” produce all the proper ingredients in a super expansion (*i.e.*, the “inflation” theory of Alan Guth). He writes:

Our universe appears smooth and uniform because all inhomogeneities were stretched $10^{10^{12}}$ – that is, a 1 followed by a trillion zeros....This tremendous spurt immediately solves most of the problems of the old cosmological theory.¹⁰⁹

But, he realizes this...

may seem too good to be true. Indeed, if all inhomogeneities were stretched away, how did galaxies form? The answer is that while removing previously existing inhomogeneities, inflation at the same time made new ones....The evolution of inflationary theory has given rise to a completely new cosmological paradigm, which differs considerably from the old Big Bang theory and even from the first versions of the inflationary scenario. In it the universe appears to be both chaotic and homogeneous, expanding and stationary. Our cosmic

¹⁰⁷ *Ibid.*, p. 98.

¹⁰⁸ “Before the Big Bang There Was...What?” *The New York Times*, May 22, 2001.

¹⁰⁹ *Ibid.*, p. 101.

home grows, fluctuates and eternally reproduces itself in all possible forms, as if adjusting itself for all possible types of life.¹¹⁰

After admitting that all these concoctions are fantastic, Linde ends his speculations by positing that the universe “grows, fluctuates and eternally reproduces itself in all possible forms, as if adjusting itself for all possible types of life,”¹¹¹ which is essentially the Multiverse before the word “Multiverse” was coined sometime in the 2000s.

Assertions such as these prove to us once again how cosmologists can create any universe they wish just by the stroke of a pen. Linde’s universe apparently has a mind of its own, in addition to being eternal. In his logic, one deals with the problem of the origin of the Big Bang by simply claiming that the Big Bang itself is eternal; that one Big Bang produces another Big Bang, *ad infinitum*. In short, the Big Bang becomes man’s god. That grown men would actually come to the point in which they speak of something coming from nothing, or matter having its own eternity, all in an effort to eliminate the biblical God as the miraculous *ex nihilo* Creator of the universe, is one of the surest signs of modern man’s insanity. But this is the religion of *Scientism*, and its believers hold to it just as tenaciously as a Christian holds to Christianity.

For over a thousand years, beginning from the time of Constantine in the early fourth century to the birth of Copernicus in the late fifteenth century, all men of godly heritage believed that the sun and stars revolved around the Earth; that all we see was created directly by God, and that the universe was limited and ordered. Ironically, modern man often calls this period of time (circa 400-1400 AD) the “Dark Ages” because of what they deem as “superstitious” beliefs. In reality, a more ominous Dark Ages began about 1400 AD with the advent of Copernicus, since man, spiritually speaking, has been on a steady decline ever since. True, man has invented many material things during this latter period that give the illusion of progress, but Scripture foresaw all of it and wasn’t impressed. As God predicted to Daniel concerning our age:

¹¹⁰ *Ibid.*, p. 102.

¹¹¹ *Ibid.*

Many shall run to and fro, and knowledge shall increase.... when the shattering of the power of the holy people comes to an end all these things would be accomplished.... the wicked shall do wickedly; and none of the wicked shall understand; but those who are wise shall understand.¹¹²

As the context reveals, however, this increased knowledge has only led man to accelerate and to magnify the evil residing in him, an evil that he has never conquered, but merely camouflaged or ignored. There are still barbarians today, only they use pens and computers rather than clubs and swords. When all is said and done, modern technology has only prompted man to do evil more quickly and efficiently, while he ignores God more boldly and pridefully than he ever did before, and *Scientism* has been his blind guide.

Solomon, the wisest of all men, put the attainment of knowledge into proper perspective:

He has put eternity into man's mind, yet so that he cannot find out what God has done from the beginning to the end....And I saw every work of God, I concluded that man cannot discover the work which has been done under the sun. Even though man should seek laboriously, he will not discover it; and though the wise man should say, "I know," he cannot discover it.¹¹³

Fortunately, however, science is a two-edged sword. True science will never oppose God or His revelation to us, but today's scientists desperately want us to believe otherwise. Separating science from God is the ultimate quest of modern man.

¹¹² Daniel 12:4, 7, 10 (RSV).

¹¹³ Ecclesiastes 3:11; 8:17.

CHAPTER 3

MODERN SCIENCE: THE INSIDE STORY

Does modern man possess true science? The answer, in most cases, is no, especially in the fields of cosmogony and cosmology. As the Russian Nobel Prize-winning physicist Lev Landau put it: “Cosmologists are often wrong, but never in doubt.”¹¹⁴ Or as Halton Arp noted:

...the problem is pervasive throughout astronomy and, contrary to its projected image, endemic throughout most of current science. Scientists, particularly at the most prestigious institutions, regularly suppress and ridicule findings which contradict their current theories and assumptions.¹¹⁵

And a bit later:

After a ridiculously long time it has finally dawned on me that establishment scientists actually proceed on the belief that theories tell you what is true and what is not true.¹¹⁶

Modern man has only made it appear as if he possesses the truth, since he has learned quite handily that only by giving such impressions can he rule the hearts of men. And that’s what it is all about – power over the people.

Most people are under the illusion that science is a monolithic consensus of truth and certainty. The reality is that science is subject to the same forces of fame, fortune, pride, position, politics, ignorance and bias as is any other venture of life. These human frailties often dictate the direction science will take, whether the course turns out to be right or wrong. A few decades ago, Massachusetts Institute of Technology professor Thomas Kuhn had shaken up quite a few of his scientific colleagues by pointing out these unpleasant realities. In his book *The Structure of Scientific*

¹¹⁴ As quoted from Dennis Overbye’s article in the *New York Times*, “In the Beginning,” July 23, 2002.

¹¹⁵ *Seeing Red: Redshifts, Cosmology and Academic Science*, 1998, p. 12.

¹¹⁶ *Ibid.*, p. 239.

*Revolutions*¹¹⁷ he notes that personalities and politics play a large role in science and its theories. He concludes that scientists can never truly understand the real world, and they understand each other even less. Kuhn, the first to coin the word *paradigm* to describe scientific myopia, reveals that scientists are molded in their thinking by the reigning models of the day, solving problems only within the accepted constraints, and rarely, if ever, challenging those constraints. He shows that the reigning paradigm at first appears to reconcile all experimental results. With time, anomalies begin to appear, which then give way to a new paradigm, but not without a long and arduous fight. As Fred Hoyle notes:

Science today is locked into paradigms. Every avenue is blocked by beliefs that are wrong, and if you try to get anything published in a journal today, you will run up against a paradigm, and the editors will turn you down.¹¹⁸

Kuhn adds that anomalies in scientific experiments are often ignored, at least until so many of them accumulate that scientists are forced to find a new paradigm. Changes occur when someone young and not fully indoctrinated makes a successful bid to overcome past failures. Still, many adopt a new paradigm simply because it is supported by other scientists with strong reputations.

Physicist Chet Raymo of Stonehill College says much the same in his critique:

Science has evolved an elaborate system of social organization, communication, and peer review to ensure a high degree of conformity with existing orthodoxy....In a recent article titled "When Do Anomalies Begin?" (*Science*, February 7th, 1992), Alan Lightman of MIT and Owen Gingerich of the Harvard-Smithsonian Center for Astrophysics describe the conservation of science. They acknowledge

¹¹⁷ Thomas Kuhn, *The Structure of Scientific Revolutions*, 3rd ed., 1962, 1996. Since 1962, Kuhn's book has sold over a million copies in 16 languages.

¹¹⁸ *Scientific American*, "Profile: Fred Hoyle: The Return of the Maverick," by John Horgan, March 1995, p. 47. In the same article, Horgan notes that, even though Hoyle had some "bizarre ideas," *Nature* dubbed him "one of this century's leading scientists." Horgan begins his article with "...a special fear may creep into the hearts of scientists: What if Fred Hoyle is right? Then astronomy is a sham, biology a house of cards and modern medicine an illusion" (*ibid.*, p. 46).

that scientists may be reluctant to face change for the purely psychological reason that the familiar is more comfortable than the unfamiliar....Usually, say Lightman and Gingerich, such anomalies are recognized only in retrospect. Only when a new theory gives a compelling explanation of previously unexplained facts does it become “safe” to recognize anomalies for what they are. In the meantime scientists often simply ignore what doesn’t fit....For some people outside mainstream science, the path toward truth seems frustratingly strewn with obstacles. Like everyone else, scientists can be arrogant and closed-minded.¹¹⁹

Lightman and Gingerich add:

An anomaly in science is an observed fact that is difficult to explain in terms of the existing conceptual framework. Anomalies often point to the inadequacy of the current theory and herald a new one. It is argued here that certain scientific anomalies are recognized as anomalies only after they are given compelling explanations within a new conceptual framework. Before this recognition, the peculiar facts are taken as given or are ignored in the old framework. Such a ‘retrorecognition’ phenomenon reveals not only a significant feature of the process of scientific discovery but also an important aspect of human psychology....Science is a conservative activity, and scientists are reluctant to change their explanatory frameworks. As discussed by sociologist Bernard Barber, there are a variety of social and cultural factors that lead to conservatism in science, including commitment to particular physical concepts, commitment to particular methodological conceptions, professional standing, and investment in particular scientific organizations.¹²⁰

In a *Newsweek* article, Brian Martin reveals what a cut-throat business science is today:

Textbooks present science as a noble search for truth, in which progress depends on questioning established ideas. But for many scientists, this is a cruel myth. They know from bitter experience that disagreeing with the dominant view is dangerous – especially when that view is backed

¹¹⁹ Chet Raymo, *Sky and Telescope*, 84 (4), 364 (1992).

¹²⁰ “When Do Anomalies Begin?” *Science*, 255, 690-695, (1992).

by powerful interest groups. Call it suppression of intellectual dissent. The usual pattern is that someone does research or speaks out in a way that threatens a powerful interest group, typically a government, Industry or professional body. As a result, representatives of that group attack the critic's ideas or the critic personally-by censoring writing, blocking publications, denying appointments or promotions, withdrawing research grants, taking legal actions, harassing, blacklisting, spreading rumors.¹²¹

In one of his recent books on the myth of the objectivity of the modern scientist, Derek Hodson reveals the astonishing results from several studies:

It is commonly asserted that particular personal characteristics and attitudes are essential for the successful pursuit of science, and that scientists themselves all possess a particular cluster of attitudes and attributes, including superior intelligence, objectivity, rationality, open-mindedness, willingness to suspend judgment, intellectual integrity and communiality.... More than 30 years ago, Roe (1961) suggested that scientists themselves do not possess these so-called 'scientific attitudes,' although they think that they do. They, too, subscribe to the myths about the emotionally-detached, disinterested impartiality of the scientist. Or they continue to promote a false image because they perceive it to be in their interests....Roe concludes: "The creative scientist, whatever his field, is very deeply involved emotionally and personally in his work."

More recent work by Mahoney (1979) examined the extent to which scientists possess each of the characteristics so frequently ascribed to them. His conclusions are as follows.

- Superior intelligence is neither a prerequisite nor a correlate of high scientific achievement.
- Scientists are often illogical in their work, particularly when defending a preferred view or attacking a rival one.
- In experimental research, scientists are often selective, expedient and not immune to distorting the data.

¹²¹ "Stamping Out Dissent," <http://www.uow.edu.au/~bmartin/pubs/93nw.html>; *Newsweek*, April 26, 1993, pp. 49-50, international edition, not US edition.

- Scientists are probably the most passionate of professionals. Their theoretical and personal biases often colour their alleged openness to the data.
- Scientists are often dogmatically tenacious in their opinions, even when contradictory evidence is overwhelming.
- Scientists are not paragons of humility or disinterest. Rather, they are often selfish, ambitious and petulant defenders of personal recognition and territoriality.
- Scientists often behave in ways which are diametrically opposite to communal sharing of knowledge. They are frequently secretive and occasionally suppress data for personal reasons.
- Far from being a ‘suspender of judgment,’ the scientist is often an impetuous truth-spinner who rushes to hypotheses and theories long before the data would warrant.

Mitroff and Mason (1974) distinguish two kinds of scientist: the extreme speculative scientists, who “wouldn’t hesitate to build a whole theory of the solar system based on no data at all,” and the databound scientists, who “wouldn’t be able to save their own hide if a fire was burning next to them because they’d never have enough data to prove the fire was really there.” What this and several other studies show is that, contrary to the textbook stereotype, the greater the scientist, the more likely she or he is to belie the myth of the disinterested, uncommitted individual, the “depersonalized and idealized seeker after truth, painstakingly pushing back the curtains which obscure objective reality” (Cawthron and Rowell, 1978).¹²²

¹²² Derek Hodson, “Science fiction: the continuing misrepresentation of science in the school curriculum,” 1998, in *Pedagogy, Culture and Society*, 6:2, pp. 205-206, Routledge, 2006. Hodson’s references include: A. Roe, (1961) “The Psychology of the Scientist,” *Science*, 134, pp. 456-459; P. J. Gaskell, (1992) “Authentic Science and School Science,” *International Journal of Science Education*, 14, pp. 265-272; M. J. Mahoney, (1979) “Psychology of the Scientist,” *Social Studies of Science*, 9, pp. 349-375; I. Mitroff and R. Mason, “On evaluating the scientific contribution of the Apollo missions via information theory: a study of the scientist-scientist relationship,” *Management Science: Applications*, 20, pp. 1501-1513; E. Cawthron and J. Rowell, (1978) Epistemology and science education,” *Studies in Science Education*, 5, pp. 31-59.

John E. Chappell, Jr., with whom I had many phone conversations before his death (d. 2002), related how in the 1920's when Einstein's theory of General Relativity won the day with what many scientists have come to realize were bogus photographs of starlight bending near the sun, outright censorship began to reign supreme in the halls of many universities. He writes:

One of the most recent comes from a new NPA member who, when doing graduate work in physics around 1960, heard the following story from his advisor: While working for his Ph.D. in physics at the University of California in Berkeley in the late 1920s, this advisor had learned that all physics departments in the U.C. system were being purged of all critics of Einsteinian relativity. Those who refused to change their minds were ordered to resign, and those who would not were fired, on slanderous charges of anti-Semitism. The main cited motivation for this unspeakably unethical procedure was to present a united front before grant-giving agencies, the better to obtain maximal funds. This story does not surprise me. There has been a particularly vicious attitude towards critics of Einsteinian relativity at U.C. Berkeley ever since. I ran into it in 1985, when I read a paper arguing for absolute simultaneity at that year's International Congress on the History of Science. After I finished, the Danish chairman made some courteous remarks about dissidents he had learned about in Scandinavia, and then turned to the audience for questions. The first speaker was one of a group of about 4 young physics students in the back. He launched immediately into a horrible tirade of verbal abuse, accusing me of being entirely wrong in my analysis, a simplification of the Melbourne Evans analysis – "Evans is wrong; you are wrong," he shouted. He accused me of being way out of line to present my "faulty" arguments on his prestigious campus. When I started to ask him, "Then how would you explain..." he loudly interrupted me with "I don't have to explain anything." The rest of the audience felt so disturbed by all this, that the question session was essentially destroyed.¹²³

Others have experienced what, for lack of a better term, amounts to a cult of Einstein that has been engineered by very high-placed sympathizers of Einstein's world view. Ruggero M. Santilli writes of his own experience:

¹²³ John E. Chappell, Jr., "What Ideas Does The NPA Stand For?" February, 2000.

This book is, in essence, a report on the rather extreme hostility I have encountered in U.S. academic circles in the conduction, organization and promotion of quantitative, theoretical, mathematical, and experimental studies on the apparent insufficiencies of Einstein's ideas in face of an ever-growing scientific knowledge. In 1977, I was visiting the Department of Physics at Harvard University for the purpose of studying precisely non-Galilean systems. My task was to attempt the generalization of the analytic, algebraic and geometric methods of the Galilean systems into forms suitable for the non-Galilean ones. The studies began under the best possible auspices. In fact, I had a (signed) contract with one of the world's leading editorial houses in physics, Springer-Verlag of Heidelberg West Germany, to write a series of monographs in the field that were later published in refs. [R. M. Santilli, *Foundations on Theoretical Mechanics*, I: The Inverse Problem in Newtonian Mechanics, Springer-Verlag, NY, 1978] and [R. M. Santilli, *Foundations of Theoretical Mechanics*, II: Birkhoffian Generalization of Hamiltonian Mechanics, Springer-Verlag, NY, 1982]. Furthermore, I was the recipient of a research contract with the U.S. Department of Energy, contract number ER-78-S-02-4720.A000, for the conduction of these studies. Sidney Coleman, Shelly Glashow, Steven Weinberg, and other senior physicists at Harvard opposed my studies to such a point of preventing my drawing a salary from my own grant for almost one academic year. This prohibition to draw my salary from my grant was perpetrated with full awareness of the fact that it would have created hardship on my children and on my family. In fact, I had communicated to them (in writing) that I had no other income, and that I had two children in tender age and my wife (then a graduate student in social work) to feed and shelter. After almost one academic year of delaying my salary authorization, when the case was just about to explode in law suits, I finally received authorization to draw my salary from my own grant as a member of the Department of Mathematics of Harvard University. But, Sidney Coleman, Shelly Glashow and Steven Weinberg and possibly others had declared to the Department of Mathematics that my studies "had no physical value." This created predictable problems in the mathematics department which lead to the subsequent, apparently intended, impossibility of continuing my research at Harvard. Even after my leaving Harvard, their claim of "no physical value" of my studies persisted, affected a

number of other scientists, and finally rendered unavoidable the writing of IL GRANDE GRIDO.¹²⁴

Continuing on with our analysis, reflecting on the views of Michael Polanyi, Catholic historian Philip Sherrard writes:

Other philosophers of science like Michael Polanyi have spoken of how impossible it is for the scientist not to be influenced by purely subjective factors such as what he expects to see, what other people have persuaded him that he should see, and so on – factors which mean that measurements of temporal and spatial intervals are not just given to the mind but are given to a particular mind deeply and inextricably involved with its own subjective personal prejudices and requirements.

In short, it could be argued that scientists themselves now admit that the best of their theories are but hypotheses, and that these, far from being reached inductively on the basis of objective data, as the old-fashioned empiricist would have it, are for the most part simply postulated as the most probable explanation or interpretation of certain data in accordance with a specific model which the scientist in question happens to have accepted.¹²⁵

Going deeper into our subject, Sherrard compares modern science to Eastern mysticism:

Indeed, some scientists...claim that what they call the new physics has entirely emancipated itself from the mechanistic worldview of Cartesian and Newtonian physics and has in fact moved close to the worldview of Eastern mysticism. The two basic theories of modern physics – the quantum theory and the theory of relativity – exhibit...all the main features of the Eastern world view.¹²⁶

Ultimately, if the ‘new physics’ has performed any positive service it is that it demonstrates more clearly than ever before the total incompetence of modern science to say anything about the nature of the universe in which one can place any trust at all....their attempt to

¹²⁴ R. M. Santilli, *Il Grande Grido: Ethical Probe on Einstein's Followers in the U. S. A. : An Insider's View*, 1984, p. 7.

¹²⁵ Philip Sherrard, *The Rape of Man and Nature: An Enquiry into the Origins and Consequences of Modern Science*, 1987, p. 74.

¹²⁶ *Ibid.*, p. 75.

explain many phenomena by their examination of a few is a purely arbitrary process and cannot have anything to do with knowledge in the real sense of the word. Yet this on their own confession is all they are capable of doing: That all scientific theories and models are by definition approximations, and may be totally inadequate to convey a true picture of the reality with which they purport to be dealing, is a conclusion to which all modern scientific research is condemned by the premises from which it starts.¹²⁷

Finally, an observation that relates directly to the cosmological debate, Sherrard states:

In its turn, this revolution may be said to have two main characteristics, which are closely interconnected. The first is that it assumed that knowledge must be based on the observation of external phenomena: it must be based on sense-data without reference to the divine or indeed to any preconceived *a priori* ideas. The second is that it concluded that in order to reduce the data obtained from the observation of external phenomena to a coherent and reliable system of knowledge they must be submitted to the discipline of mathematics....The divorce between religion and philosophy is absolute: concern for the spiritual is banished from the study of physical phenomena and all scientific knowledge must be derived from the observation of a natural world regarded as a self-subsistent entity.¹²⁸

Astronomer Tom van Flandern (d. 2009), once a card-carrying member of the scientific elite, writes how amazed he became when he discovered that almost every theory he had been taught in his professional career was wrong:

I particularly noted a regular practice of not re-examining the fundamental assumptions underlying a theory once it gained “accepted” status, almost no matter how incompatible some new observations or experiment might be. And I saw powerful vested interests in a “status quo” develop around certain accepted theories. It gradually became clear that a lot of people had a lot to lose if an accepted theory or practice were challenged; the authors of the original theory, whose names had become well-known; all those who published papers which

¹²⁷ *Ibid.*, p. 76.

¹²⁸ *Ibid.*, p. 95.

reference or depend on the theory; journal editors and referees who have made decisions or criticized other works based on a theory; funding agencies which have paid for research which presupposes a theory; instrument builders and experiment designers who spend career time testing ideas which spring from a theory; journalists and writings whose publications have featured or promoted a theory; teachers and interested members of the public who have learned a theory, been impressed by the wonder of it, and who have no wish to have to teach or learn a new theory; and students, who need to find a job in their field of training. It has been my sad observation that by mid-career there are very few professionals left truly working for the advancement of science, as opposed to the advancement of self. And given enough people with strong enough interests, professional peer pressure takes over from there. Peer pressure in science, as elsewhere in society, consists of alternately attacking and ignoring the people who advocate a contrary idea, and discrediting their motives and/or competence, in order to achieve conformity.

Adding to the list, Van Flandern speaks about specialization actually working against the attainment of scientific truth rather than fostering it:

As if there weren't already enough inertia to major changes of models, I see yet another phenomenon – new to our era of rapid progress in science – which mitigates against change even in the face of overwhelming need for it. Few scientists consider themselves qualified very far outside their own areas of expertise. Since each expert can account for only a small portion of the data dealing with a model, he defers to the other experts to support the model in other areas. Few, if any, scientists have the breadth of knowledge to see the full picture for a given model. So the model remains supported because many individual authorities support it, none of whom have the expertise to criticize the model overall, and all of whom have the utmost confidence in the others collectively. Authorities can continue to multiply indefinitely, with no one taking responsibility for integrating all their combined knowledge. As a result, the existing models get perpetuated regardless of merit or the extent of counter-evidence, because “so many

experts can't all be wrong." Thus each expert is persuaded to force-fit his own data into the accepted model.¹²⁹

The truth is, not only does modern man know very little about true science, he makes a concerted effort to suppress true science when it conflicts with his pseudo-scientific presuppositions and personal agendas. When their errors can no longer be suppressed, scientists will eventually capitulate, resulting in theories that change every 50-100 years or so. As Max Planck once said: "Science proceeds funeral by funeral."¹³⁰ Rather than admitting their past failures, however, modern man hails the newest theory as evidence of his own intellectual prowess, until, of course, his new theory is eventually put on the chopping block and obliterated by the next genius.

After examining several cases of fraud in the science establishment, William Broad and Nicholas Wade made a thorough search into many of its claims. They provide us with the dismal results:

Our conclusion, in brief, is that science bears little resemblance to its conventional portrait...In the acquisition of new knowledge, scientists are not guided by logic and objectivity alone, but also by such nonrational factors as rhetoric, propaganda, and personal prejudice. Scientists do not depend solely on rational thought, and have no monopoly on it. Science should not be considered the guardian of

¹²⁹ Tom van Flandern, *Dark Matter, Missing Planets and New Comets*, 1993, pp. xvii-xviii.

¹³⁰ Anecdotal, and possibly an interpolation from his more complete remark: "A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents die and a new generation grows up that is familiar with it." Max Planck's physics teacher once advised him: "Physics is finished, young man. It's a dead-end street," then advised Planck to become a concert pianist instead" (Nick Herbert, *Quantum Reality*, p. 31). A similar statement comes from Mark Twain: "When even the brightest mind in our world has been trained up from childhood in a superstition of any kind, it will never be possible for that mind, in its maturity, to examine sincerely, dispassionately, and conscientiously any evidence or any circumstance which shall seem to cast a doubt upon the validity of that superstition. I doubt if I could do it myself" (attributed, not verified).

rationality in society, but merely one major form of its cultural expression.¹³¹

Others have revealed the same corruption. Robert Bell, author of *Impure Science: Fraud, Compromise and Political Influence in Scientific Research*,¹³² is one of the better. As one reviewer states:

Bell shows time and again how the supposedly ‘objective’ scientific-research process is subverted by ego, infighting, and the lure of cold cash....Bell opens his well-researched account with a stunning attack on the scientific community’s sacrosanct system of ‘peer-review,’ which he says often means ‘review by one’s competition’ in today’s highly competitive world of scientific research...all too often peer review simply becomes a process by which powerful, well-established scientists can reward their friends and frustrate their rivals....the greatest problem in today’s scientific community may well be fraud...particularly in the field of medical research, has resulted in deadly drugs being left on the market and faulty heart valves being implanted in people’s chests.¹³³

Scientific historian Robert Jahn sees much the same:

Thus, at the dawn of the 21st century, we again find an elite, smugly contented scientific establishment, but one now endowed with far more public authority and respect than that of the prior version. A veritable priesthood of high science controls major segments of public and private policy and expenditure for research, development, construction, production, education and publication throughout the world, and enjoys a cultural trust and reverence that extends far beyond its true merit. It is an establishment that is largely consumed with refinements and

¹³¹ *Betrayers of the Truth*, William Broad and Nicholas Wade, 1982, pp. 8-9. Broad and Wade point out the problems with “peer review” (pp. 18-21, 89-102), faulty data collection (pp. 107-125), desire for advancement and continuation of government funding (pp. 88-106), non replication of experiments (pp. 60-87), *status-quo* obstacles (pp. 126-160), protecting popular scientists and pet projects from scrutiny (pp. 161-180), personal agendas (pp. 181-211). Broad and Wade uncover many discrepancies and problems with Galileo, Newton, Einstein, Darwin, and many other scientists involved with cosmological issues.

¹³² Robert Bell, *Impure Science: Fraud, Compromise and Political Influence in Scientific Research*, 1992.

¹³³ Simon Garfinkel, “When Fraud Taints Science,” *Christian Science Monitor*, July 1992.

deployments of mid-20th century science, rather than with creative advancement of fundamental understanding of the most profound and seminal aspects of its trade. Even more seriously, it is an establishment that persists in frenetically sweeping legitimate genres of new anomalous phenomena under its intellectual carpet, thereby denying its own well-documented heritage that anomalies are the most precious raw material from which future science is formed.¹³⁴

The problems haven't lessened since Wade (1982) and Bell (1992) revealed their statistics. Horace Judson, from my alma mater, George Washington University, published *The Great Betrayal: Fraud in Science* in 2004 showing that the problems are much worse than two decades ago. As the title denotes, Judson concentrates on the problem of fraud. As the reader digests the case studies Judson presents, he often has to reposition his jaw from the constant downward reflex it is prone to assume.¹³⁵

¹³⁴ Robert G. Jahn, "20th and 21st Century Science: Reflections and Projections," *Journal of Scientific Exploration* 15, 1, 2001, p. 21.

¹³⁵ Horace F. Judson, *The Great Betrayal: Fraud in Science*, 2004, p. 463. A recent article titled "Most Scientific Papers are Probably Wrong" in *Science Medicine* says: "Most published scientific research papers are wrong, according to a new analysis. Assuming that the new paper is itself correct, problems with experimental and statistical methods mean that there is less than a 50% chance that the results of any randomly chosen scientific paper are true. John Ioannidis, an epidemiologist at the University of Ioannina School of Medicine in Greece, says that small sample sizes, poor study design, researcher bias, and selective reporting and other problems combine to make most research findings false. But even large, well-designed studies are not always right, meaning that scientists and the public have to be wary of reported findings. 'We should accept that most research findings will be refuted. Some will be replicated and validated. The replication process is more important than the first discovery,' Ioannidis says. In the paper, Ioannidis does not show that any particular findings are false. Instead, he shows statistically how the many obstacles to getting research findings right combine to make most published research wrong. Massaged conclusions: Traditionally a study is said to be 'statistically significant' if the odds are only 1 in 20 that the result could be pure chance. But in a complicated field where there are many potential hypotheses to sift through - such as whether a particular gene influences a particular disease - it is easy to reach false conclusions using this standard. If you test 20 false hypotheses, one of them is likely to show up as true, on average. Odds get even worse for studies that are too small, studies that find small effects (for example, a drug that works for only 10% of patients), or studies where the protocol and endpoints are poorly defined, allowing researchers to massage their conclusions after the fact. Surprisingly, Ioannidis says another

Recently, researcher Woo Suk Hwang dazzled the world with his claims of cloning human embryonic stem cells, until he was forced to admit that he fabricated all of it.¹³⁶ For years the medical establishment told its patients that low-fat diets helped reduce stroke, heart disease and other such vascular maladies, but within a few short weeks into the year 2006 the same establishment told us that those studies were all erroneous based on the evidence from even “newer studies.”¹³⁷ For years men and women advanced in years were told to take calcium supplements to strengthen their bones, and once again the year 2006 brought us the sad news that science, true to form, took a wrong turn, since other “studies” found that taking calcium supplements not only doesn’t strengthen the bones but increases the risk of other maladies. Where will it all end?¹³⁸

PALEONTOLOGY: LAYERS AND LAYERS OF FALSE EVIDENCE

We do not have the space to go through an exhaustive study of paleontology. What we can show is how it rises to the top of the list by its dishonest purveyors and the devious methods they use. There can only be one conclusion made—they are not to be trusted.¹³⁹ Let’s look at the salient examples.

predictor of false findings is if a field is “hot”, with many teams feeling pressure to beat the others to statistically significant findings. But Solomon Snyder, senior editor at the Proceedings of the National Academy of Sciences, and a neuroscientist at Johns Hopkins Medical School in Baltimore, US, says most working scientists understand the limitations of published research. ‘When I read the literature, I’m not reading it to find proof like a textbook. I’m reading to get ideas. So even if something is wrong with the paper, if they have the kernel of a novel idea, that’s something to think about,’ he says.” (Journal: Public Library of Science Medicine, DOI: 10.1371/journal.pmed.0020124). See also: Richard Milton, *Forbidden Science: Exposing the Secrets of Suppressed Research*, 1994; Anthony Standen, *Science is a Sacred Cow*, 1952, 2000. Standen writes: “Physics is *not* a body of indisputable and immutable Truth; it is a body of well-supported probable opinion only, and its ideas may be exploded at any time” (p. 49).

¹³⁶ “Con Men in Lab Coats” *Scientific American*, March 2006, p. 10.

¹³⁷ “Low-Fat Diet Falls Short,” *Science News*, February 11, 2006, vol. 169, p. 85.

¹³⁸ See also “Face up to fraud,” *Nature* 481, 237-238, (19 January 2012); and “20 Things You Didn’t Know about Science Fraud,” Eric A. Powell, *Discover*, April 2012, p. 72.

¹³⁹ A recent spat of popular books doubting the assumptions of evolution, such as Michael Behe’s *Darwin’s Black Box: The Biochemical Challenge to Evolution*;

For decades evolutionists had touted the change in wing color of the peppered moths of England as a perfect example of the evolutionary process. School textbooks are filled with pictures of the peppered moths as proof of evolution. It has been found, however, that every photo of the peppered moths was doctored. Evolutionists colored the wings and pasted the moths on trees; and then took photos, which they then distributed worldwide. Although this subterfuge was exposed, no apologies came forth from the evolutionary establishment, and no attempt to remove the fake photos has been undertaken. There are dozens of similar examples that could be listed.

The history of paleontology in regards to humans and their supposed “missing-links” is a classic case of human distortion of evidence and downright dishonesty. Some of the most outlandish claims have been made from the most suspect and flimsiest evidence. For example, in 1922 a pioneer excavator found a somewhat odd-looking molar tooth in Nebraska. Henry Osborn, distinguished professor of the Natural History Museum in New York, concluded the tooth belonged to a “missing-link” between ape and man, which was then labeled Nebraska Man. Shortly thereafter, in 1927, it was found that the tooth belonged to a peccary, a cousin to the pig.

A couple years later, the famed Neanderthal Man was found in Neanderthal, England. His brain capacity was said to be a little smaller than a chimpanzee and a prime candidate for the “missing-link.” But later evidence showed Neanderthal Man had a brain capacity larger than modern man. It was also discovered through artifacts that he believed in the supernatural; that he buried his dead in ceremonies and he intermarried with others of his own kind. Much to the chagrin of his discoverers, it was also revealed that Neanderthal Man walked upright, the same as humans today. Yet artist’s conceptions of Neanderthal Man pictured him as a

Phillip Johnson’s *Darwin on Trial*; Michael Denton’s *Evolution: A Theory in Crisis* and *Natures Design*. Dr. Lester McCann’s *Blowing the Whistle on Darwinism*; Michael Dembski’s work on *Science and Evidence for Design in the Universe*, Kenyon’s *Of Pandas and People*, and many other works, as never before, have unveiled the tenuous structure upon which evolutionary theory is built.

hunched-over, knuckle-rubbing, brutish creature, complete with protruding jaw resembling an ape.

Another charade involved Piltdown Man from Piltdown, England, a truly ghastly tale of deceit and deception. A prime figure in this effort was the Jesuit priest Pierre Teilhard de Chardin, who, because of this alleged discovery, became a world-renowned paleontologist. In 1912, an ape-like lower jawbone, whose teeth resembled the worn-down teeth of a human, but had one tooth that was said to be similar to a canine tooth but it was missing. The importance of the connection between the human and canine teeth is that an ape tooth which wore down like a human's would mean that the creature was between an ape and a human. In 1913, de Chardin claimed to have found the needed canine tooth and thus proceeded to fit it into the jaw.

For the rest of the story, I will quote from the book *Betrayers of the Truth* by William Broad and Nicholas Wade, who show how Piltdown Man became one of the biggest frauds in paleontological history. The authors write:

The discovery of the Piltdown man was made by Charles Dawson, a lawyer who maintained a quiet practice in the south of England and dabbled in geology. A tireless amateur collector of fossils, Dawson noticed a promising-looking gravel pit on Piltdown Common, near Lewes in Sussex. He asked a laborer digging there to bring him and flints he might find. Several years later, in 1908, the laborer brought him a fragment of bone that Dawson recognized as part of a thick human skull. Over the next three years further bits of the skull appeared.

In 1912 Dawson wrote to his old friend Arthur Smith Woodward, a world authority on fossil fishes at the geology department of the British Museum of Natural History, saying he had something that would top the German fossil found at Heidelberg. Woodward made several visits with Dawson to the Piltdown gravel pit. On one of these expeditions, Dawson's digging tool struck at the bottom of the pit and out flew part of a lower jaw. Close examination led Woodward and Dawson to believe that it belonged to the skull they had already reconstructed.

In great excitement, Smith Woodward took everything back to the British Museum, where he put the jaw and cranium together, filling in missing parts with modeling clay and his imagination. The result was truly remarkable. The assembled skull became the “dawn man” of Piltdown. Kept secret until December 1912, it was unveiled before a full house at the Geological Society in London, where it created a sensation. Some skeptics suggested that the human skull and apelike jaw did not belong together; others pointed out that two characteristically abraded molar teeth were not enough to prove the jaw was human. But these objections were ignored, and the find was accepted as a great and genuine discovery.

The talk in clubs and pubs could note with satisfaction the new proof that the earliest man was indeed British. The Piltdown skull was also of scientific interest because it seemed to be the “missing link,” the transitional form between ape and man that was postulated by Darwin’s still controversial theory of evolution. Subsequent excavations at the gravel pit were not disappointing. A whole series of new fossils emerged. The clinching evidence came from a pit a few miles away – the discovery a few years later of a second Piltdown man.

Yet some were troubled by the Piltdown finds, among them young zoologist at the British Museum, Martin A. C. Hinton. After a visit to the site in 1913, Hinton concluded that the whole thing was a hoax. He decided to smoke out the tricksters by planting clearly fraudulent fossils and watching the reactions. He took an ape tooth from the collection at the museum and filed it down to match the model canine tooth that Smith Woodward had fashioned out of clay. Hinton had the obvious forgery placed in the pit by an accomplice and sat back to wait for it to be discovered and the entire Piltdown collection to be exposed.

The tooth was discovered, but nothing else went right with Hinton’s plan. All involved with the “discovery” seemed delighted and soon notified the nation about the new find. Hinton was astonished that his scientific colleagues could be taken in by so transparent a fake, and he suffered the additional mortification of seeing Charles Dawson, whom he suspected to be the culprit, acquiring kudos for his handiwork. He decided to try again, only this time with something so outrageous that the whole country would laugh the discoverers to scorn.

In a box in the British Museum he found a leg bone from an extinct species of elephant. He proceeded to carve it into an extremely appropriate tool for the earliest Englishman – a Pleistocene cricket bat. He took the bat to Piltdown, buried it, and waited for the laughter.

It was a long wait. When the bat was unearthed, Smith Woodward was delighted. He pronounced it a supremely important example of the work of Paleolithic man, for nothing like it had ever been found before. Smith Woodward and Dawson published a detailed, serious description of the artifact in a professional journal but stopped short of calling it an actual cricket bat. Hinton was astonished that none of the scientists thought of trying to whittle a bit of bone, fossil or fresh, with a flint edge. If they had, they would have discovered it was impossible to imitate the cuts on the cricket bat. “The acceptance of this rubbish completely defeated the hoaxsters,” notes a historian of the Piltdown episode. “They just gave up, and abandoned all attempts to expose the whole business and get it demolished in laughter and ridicule.” Perhaps Hinton and friends should have considered planting a bone on which the name Smith Woodward had been carved.

Piltdown man retained its scientific luster until the mid-1920s and the discovery of humanlike fossils in Africa. These indicated a very different pattern of human evolution to that suggested by the Piltdown skull. Instead of a human cranium with an apelike jaw, the African fossils were just the reverse – they had humanlike jaws with apelike skulls. Piltdown became first an anomaly, then an embarrassment. It slipped from sight until modern techniques of dating showed in the early 1950s that the skull and its famous jaw were fakes: an ape jaw, with filed-down molars, and a human skull had each been suitably stained to give the appearance of great age.

Circumstantial evidence pointed to the skull’s discoverer, Dawson, as the culprit. But many have doubted that he could have been the instigator; although he was best placed to salt the gravel pit, he probably lacked access to the necessary fossil collections as well as the scientific expertise to assemble fossils of the right age for the Piltdown gravel. Indeed, the real mystery is not who did it but how a whole generation of scientists could have been taken in by so transparent a prank. The fakery was not expert. The tools were poorly carved and the teeth crudely filed. “The evidence of artificial abrasion immediately sprang to the eye. Indeed so obvious did they seem it may well be

asked – how was it that they had escaped notice before,” remarked anthropologist Le Gros Clark.”¹⁴⁰

In 1924 a few paleontologists found what has come to be known as Australopithecines. These specimens are pictured as large-jawed, small-brained creatures, standing about four feet and walking almost upright, but not precisely. The depiction is made from the flimsiest of fossil evidence. In 1954, the renowned Solly Zuckerman did an investigation and found that Australopithecines showed no evidence of a creature evolving into human form. In 1975, Charles Oxnard of the University of Chicago likewise concluded that Australopithecines was closer to an orangutan than an ape or human.

In 1950, Dr. Louis Leakey and his wife found four hundred fragments of one skull and assembled them, except the jaw was missing. Not to be deterred, they added an artificial jaw bone based on a jaw that Leakey’s son found in a different place. They called the finished product Zinjanthropus (“East Africa Man”) and dubbed it “Zinj.” Based on the fossils that were near Zinj, Leakey claimed his new discovery was 600,000 years old, stating, “There is no riddle to the dating of our new discovery.”¹⁴¹ This 600,000-year old “missing link” was far older than any other previous find, and Leakey was praised the world over. But just a year later, the potassium-argon process was applied to Zinj and it found him to be 1.75 million years old. Whereas Leakey had previously claimed that Zinj could be no older than “roughly between 600,000 and 200,000 years,” he soon had to retreat from this claim the following year.

Then in February 1961 Leakey claimed to have found the bones of a child that were closer to modern man than Zinj, but at a strata below that of Zinj. Later, since another scientist reported to have found a more modern-type man at a strata previously labeled at 14 million years old, Leakey then suggested there were two pre-modern men existing simultaneously. Then in *Newsweek* magazine, April 13, 1964, Leakey changed his mind again and said he found a man older than Zinj, which he now called *Homo*

¹⁴⁰ William Broad and Nicholas Wade, *Betrayers of the Truth*, New York, Simon and Schuster, 1982, pp. 119-122.

¹⁴¹ *National Geographic*, Sept. 1960, p. 421ff.

Habilis (“man having ability”), a specimen he believed was human, claiming that he lived between 1 to 2 million years ago, and who was thus older than Java man, Peking man, Neanderthal man and even Zinj. Leaky was now forced to say that Zinj was merely an animal, not even pre-human. In the end, not only had Leakey failed to discover the so-called “missing link,” he had actually eliminated all the previously claimed links (Java, Peking, Neanderthal, *et al*). In *Time* magazine, July 28, 1958, Leakey admitted: “The true missing link is still to be found.”

It is a fact that every “missing-link” purported by evolutionists has been found to be either faked or forced. Coupling these facts with the worldwide conspiracy perpetrated by today’s museum curators who create models of transitional fossil as if they really existed, we see there has been a significant and ongoing amount of fabrication in modern paleontology.

There are many more such cases in anthropology, archeology, radiometrics and geology, but these examples will suffice for the present. It would not be so bad except that the long-agers and evolutionists have admitted their presuppositions and that they will not change their tactics or their minds when confronted with contrary evidence to their theory of evolution. Here are a few examples of their hubris. In 1929, evolutionist D. M. S. Watson, stated: “The theory of evolution is universally accepted not because it can be proven true, but because the only alternative is special creation by God, which is clearly incredible.”¹⁴² Similarly, geneticist Richard Lewontin stated:

We take the side of science in spite of the patent absurdity of some of its constructs, in spite of its failure to fulfill many of its extravagant promises of health and life, in spite of the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment, a commitment to materialism.

It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our a priori adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counterintuitive, no

¹⁴² *Nature*, Vol. 123, April 1929.

matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door.¹⁴³

There are dozens of cases in which creationists, or even those who side with Intelligent Design, have been fired immediately from their jobs because they suggested a divine source for what we see or disagreed with the *status quo*.¹⁴⁴ The conspiracy was no better confirmed than in the case of Richard von Sternberg. Von Sternberg holds two Ph.D.s in evolutionary biology. In 2000, von Sternberg won a prestigious appointment as a research associate at the Smithsonian Institution in Washington DC. But von Sternberg was vilified by his colleagues for suggesting that Intelligent Design is a viable cosmogony. The obvious reason is that his colleagues were all atheists. An article in the *Washington Post* by Michael Powell reveals:

Evolutionary biologist Richard Sternberg made a fateful decision a year ago. As editor of the hitherto obscure Proceedings of the Biological Society of Washington, Sternberg decided to publish a paper making the case for “intelligent design,” a controversial theory that holds that the machinery of life is so complex as to require the hand – subtle or not – of an intelligent creator. Within hours of publication, senior scientists at the Smithsonian Institution -- which has helped fund and run the journal – lashed out at Sternberg as a shoddy scientist and a closet Bible thumper. “They were saying I accepted money under the table, that I was a crypto-priest, that I was a sleeper cell operative for the creationists,” said Steinberg, 42, who is a Smithsonian research associate. “I was basically run out of there.” An independent agency has come to the same conclusion, accusing top scientists at the Smithsonian’s National Museum of Natural History of retaliating against Sternberg by investigating his religion and smearing him as a “creationist.”

The U.S. Office of Special Counsel, which was established to protect federal employees from reprisals, examined e-mail traffic from these scientists and noted that “retaliation came in many forms.... misinformation was disseminated through the Smithsonian Institution

¹⁴³ “Billions and Billions of Demons,” *The New York Review of Books*, January 9, 1997, pp. 28, 31.

¹⁴⁴ See Ben Stein’s movie: *Expelled: No Intelligence Allowed*, 2008.

and to outside sources. The allegations against you were later determined to be false.” “The rumor mill became so infected,” James McVay, the principal legal adviser in the Office of Special Counsel, wrote to Sternberg, “that one of your colleagues had to circulate [your résumé] simply to dispel the rumor that you were not a scientist.” The *Washington Post* and two other media outlets obtained a copy of the still-private report. McVay, who is a political appointee of the Bush administration, acknowledged in the report that a fuller response from the Smithsonian might have tempered his conclusions. As Sternberg is not a Smithsonian employee – the National Institutes of Health pays his salary – the special counsel lacks the power to impose a legal remedy. A spokeswoman for the Smithsonian Institution declined comment, noting that it has not received McVay’s report.¹⁴⁵

¹⁴⁵ Friday, August 19, 2005.

CHAPTER 4

MY PERSONAL EXPERIENCE WITH FR. ROBINSON

A few months ago, a patron of our apostolate named Mark (last name withheld for privacy) wrote to me because he wanted my opinion on some things Fr. Robinson wrote in his book, *The Realist Guide to Religion and Science*. I proceeded to answer Mark's questions and obtained Mark's permission to send the same answers to Fr. Robinson since I thought they would be helpful for Fr. Robinson and perhaps lead to a discussion between us. The date of the letter was March 6, 2018. I started my letter with an introduction to Fr. Robinson regarding why I copied him on the letter to Mark. Although I was as polite as a southern grandmother offering peach pie, Fr. Robinson answered back with a rather stinging rebuke for even trying to contact him, much less attempting to discuss particular points of his book that were of concern to Mark. Here is part of his letter to me with a copy to Mark:

Fr. Paul Robinson <xxxxxxx@sspx.net>

March 8, 2018

Dear Mr. Sungenis, Thank you for your email. I hope that you at least suspected that this would not be the proper way to go about engaging me in a discussion about my views on geocentrism and the contents of my book. Regardless, the fact that you would send me an unsolicited email with an over-extended rebuttal of a private email that I sent to another person only confirms my worse fears about your prudence, fears that are already accompanied by a conviction of your lack of intellectual judgment. You are obviously a very intelligent man. But it is quite one thing to have much knowledge and quite another to apply it well. That being said, you will understand why I do not want to engage you in a debate and why I did not contact you before publishing my book. I have read enough of what you have written and enough of what others have written to you (especially this) to be convinced that I will not be able to convince you and you will not be able to convince me. If you would like to see what I have written, it is easily obtainable online. You will find there that I differ from you in my theological,

philosophical, and scientific views. Both literally and metaphorically, we have quite different worldviews.

R. Sungenis: I had to read this letter a few times to make sure my agitation was justified. In the end, it was hard to believe the email came from a Catholic priest. Yet once I remembered how the SSPX—of which Fr. Robinson is a member—has treated me over the years regarding the topic of geocentrism, it didn't take long to realize his response was par for the course. Unfortunately, the SSPX, since its inception in 1970, has never had a leader with a professional or academic scientific background who could provide a critical eye toward the major scientific theories of the last few centuries. As a result, it has more or less been every-man-for-himself with regard to science in the SSPX.

In any case, what did I do to deserve such a caustic response from this priest, especially since I was asked to deal with his potentially misguided or heretical views by a third-party? I simply answered the objections to Fr. Robinson's book that the third party had raised against Fr. Robinson. Below is my response to the letter that Fr. Robinson originally wrote to Mark. In responding to it, I interjected at each point in Fr. Robinson's letter where I believed an explanation or rebuttal was needed. The first paragraph was an attempt to introduce myself to Fr. Robinson:

R. Sungenis: Dear Fr. Robinson, Our mutual acquaintance, Mark, asked me to comment on a recent book you wrote, and some recent comments you made on the subject of Geocentrism, Scripture and the Church. Since this topic is one of my more eager endeavors, I accepted Mark's invitation and will comment on a letter you recently wrote to him. If you would like to engage with me, I earnestly look forward to your comments. Incidentally, I am the executive producer of the recent cosmological movie, *The Principle*, which showed in AMC and Regal cinemas in October 2014. I am also the producer of *Journey to the Center of the Universe* (DVD, 2016); *The Church versus Galileo* (DVD, 2018) and the author of *Galileo Was Wrong: The Church Was Right* (12 ed, 2017), and *Geocentrism 101* (6 ed, 2017). I have lectured for the Catholic faith for the last 25 years and counting. Some of my other works include, *Not By Faith Alone: The Biblical Basis for the Catholic Doctrine of Justification* and *Not By Scripture Alone*, and *Not*

By Bread Alone, along with 30 other published works. I have a BA, MA and Ph.D. in theological studies.

Fr. Robinson to Mark: Dear Mr. xxxxxxx, Thank you for your email. Were you able to attend my book launch in Saint Marys? Have you been able to read my book at all? The best thing for understanding my perspective on geocentrism is to read chapter 7 of my book.

R. Sungenis: I would like to have a copy of your book for review, Fr. Robinson, if that is possible. If you have a PDF copy, that would be fine and much appreciated.

Fr. Robinson to Mark: To get to your question, we have to understand the exegetical principles of the Catholic Church. The Church is at the service of the deposit of the faith given to her by Our Lord. In that deposit are supernatural truths. Sometimes, there are natural truths that are necessary to support those supernatural truths. For instance, the death of Our Lord has to be historically true for His resurrection to be historically true. His death is something natural, His resurrection something supernatural. Because Our Lord's resurrection is part of the faith, the Church has Catholics hold to the historical reality of Our Lord's death and His resurrection. As such, she has Catholics interpret literally those passages of the Gospel that recount Our Lord's death and resurrection. Likewise, she has Catholics interpret literally all other passages of Scripture that concern dogmas of the faith.

R. Sungenis: Agreed as such, although you have left undefined what you mean by “dogma.” If you are referring to infallibly defined doctrine, which often is categorized under the rubric of “dogma,” we are certainly in agreement that we must believe such things.

But if you are suggesting that the Catholic Church officially teaches, or has officially taught in the past, that the history contained in the Bible is only true when there is a “supernatural” history in view, I beg to differ. I know of no such distinction between “supernatural history” and “natural history” that the Church has taught regarding the history contained in the Bible. As Bellarmine told Foscarini, as far as biblical history is concerned, it would be just as much an error to claim that Jacob did not have twelve sons or that Jesus did not begin with twelve apostles, as it would be an error to deny that Jesus died and rose from the dead. All three statements deny that the Bible is inspired and inerrant in its history, *ex parte decentis*, and is therefore heretical.

If you know of an official Church teaching that says there is, in regard to inspiration and inerrancy, a difference between the Bible's recording of a natural event as opposed to a supernatural event, I would certainly like to see your evidence.

If you are thinking of Vatican II's *Dei Verbum* 11's statement on biblical inerrancy containing the phrase "for the sake of our salvation" as the basis for such a distinction, the Church has made no official interpretation of *Dei Verbum* 11 that excludes statements that are not dealing directly with salvation from the category of either inspiration or inerrancy. Although "for the sake of our salvation" has been used by many Catholic theologians (e.g., Raymond Brown, et al) as teaching there is a distinction between the inerrancy of salvific and non-salvific biblical statements, the Church herself, in her official statements ("dogmatic," if you will), has never taught such a distinction. If you believe and teach otherwise, I would like to see your evidence. In fact, the five footnotes included under *Dei Verbum* 11 teach, as even does *Dei Verbum* 11 itself, that there is no such distinction, and that all scriptural revelation is inspired and inerrant.

Fr. Robinson to Mark: When there comes the question of matters that do not concern dogmas of the faith, such as geocentrism, the Church does not bind her children to a literal or allegorical interpretation of the Bible.

R. Sungenis: Again, you use the phrase "dogmas of the faith" without defining what you mean. If you are suggesting by "dogma of the faith" the doctrines that have the highest endorsement of the Church's magisterium and require our "full assent" (*i.e.*, Level 1, extraordinary doctrines), I hope you are not likewise suggesting that doctrines of a lower level (ordinary and/or universal) are either in error or have no authority. I'm sure I have no need to reiterate Leo XIII's and Pius XII's teaching that even doctrine that has not reached the extraordinary level still require our assent because they are considered authoritative.

Be that as it may, the Church has never ruled on the Church's 17th century decrees on geocentrism, so it is rather presumptuous to exclude it from either the highest or lesser categories of doctrine without the Church's official sanction to do so. In fact, no official teaching about the status of the geocentric doctrines proclaimed by Paul V in 1616 or Urban VIII in 1633 has even been stated by a subsequent pope or

council, and John Paul II's speech to the Pontifical Academy of Science in 1992 certainly does not qualify as either extraordinary or ordinary proclamation of doctrine in the Catholic Church, but is only the pious opinion of a single pope who bound no one to his words.

Fr. Robinson to Mark: Rather, she is quite flexible, being willing for arguments from reason to influence her interpretation.

R. Sungenis: Yes, the Church has always allowed "reason," properly formed, to weigh-in regarding what things are true or false, and whether facts or beliefs are to be considered doctrine, as Leo XIII made clear in *Providentissimus Deus*. But since the Church held as doctrine the issue of geocentrism in 1616 and 1633, and did so by direct appeal to its patristic (and medieval) consensus as taught by the Council of Trent, the burden is surely on "reason" to prove that geocentrism is false if it wants to assert that "reason" has the right to deny geocentrism.

Prior to that burden of proof, geocentrism stands as a doctrine of the Catholic Church, regardless of what lesser rung of the ladder one desires to put it between the extraordinary and ordinary teachings of the Church. We know it is doctrine by the simple fact that Galileo was condemned as "vehemently suspect of heresy" (just a hair's breadth from formal heresy) for holding to the teaching of Copernicus that the Earth moved around the Sun. The only way Galileo could be charged with heresy is if the Church already proclaimed that the Copernican doctrine was heretical, since the Church does not make convictions of heresy in a vacuum. The error, if there is any, must then come from those who do not consider geocentrism the Church's doctrine.

Moreover, as noted above, to be charged with "heresy" means one has denied a "dogma of the faith," and thus geocentrism was understood by two popes and the Holy Office to be "of the faith," regardless of what the final level of magisterial teaching it eventually turned out to be, which has not been yet determined by the Church.

Fr. Robinson to Mark: This is why medieval scholastics, centuries before Copernicus, were able to treat in all freedom both theological and scientific arguments for heliocentrism.

R. Sungenis: Your argument suffers from the fallacy of anachronism, since there was no formal doctrinal decision given by the Church to

geocentrism prior to 1616. As for the number of arguments for heliocentrism prior to Copernicus, there were very few, since the medievals, led by Aquinas, were almost all geocentrists, and the only exceptions to this fact were theologians such as Nicholas of Cusa or Nicolas Oresme. The overwhelming majority, close to 99%, of the Fathers and medievals were geocentric, and all of them based their belief on the plain words of Scripture, the same Fathers and medievals who based their belief in the sacraments and other Catholic doctrine on the plain words of Scripture.

Fr. Robinson to Mark: This is why Copernicus himself, in his famous book arguing heliocentrism on scientific grounds, also gave arguments why heliocentrism was not against the Bible and also why it redounded more to the glory of God.

R. Sungenis: Actually, Copernicus was a bit reticent to make such a claim. It was more his cohort, Rheticus, and his publisher, Osiander (a Lutheran who had no love for the Catholic Church), who were making the claims that heliocentrism was not against Scripture. Of course, we would expect anyone who propounded a theory of heliocentrism to also argue that it “was not against the Bible,” since if they believed the Bible taught geocentrism but they taught heliocentrism, they would be immediately categorizing themselves as heretics.

Be that as it may, shortly after Osiander published Copernicus’ book, the Church took steps to ban the book. Bartolomeo Spina, the Master of the Sacred Palace from 1542 until his death in 1547, sought to have Copernicus’ book banned, which was eventually carried out by his Dominican colleague Giovanimaria Tolosani, who died two years later in 1549. Similar to Copernicus’ effort (ala Osiander’s preface) to persuade Paul III, Tolosani wrote a detailed geocentric treatise in 1546, which he dedicated to Paul III and which included an endorsement from Spina. In it Tolosani vehemently rejected Copernicus’ universe and declared it an extreme danger to the faith precisely because of its attempt to deliteralize Sacred Scripture. The Church eventually put Copernicus’ book in the *Index of Forbidden Books* in 1559, as well as teaching in four places of the 1566 Tridentine catechism the doctrine of geocentrism.

Fr. Robinson to Mark: It is Protestant exegetical model to start with the Bible and derive truths of faith from it, rather than starting with

truths of faith and then deriving the interpretation of the Bible from those truths of faith.

R. Sungenis: Although the Protestants certainly have their problems in Bible interpretation, your assessment of how the Catholic Church arrives at doctrinal truth is not precisely correct either. Some Catholic truths come from apostolic tradition and are not recorded in the Bible (*e.g.*, infant baptism), but since many topics are not addressed explicitly in apostolic tradition, a good number of our Catholic truths come from the official Catholic interpretation of Scripture, while others are a combination of tradition and Scripture wherein the tradition verifies our official interpretation of Scripture, and vice-versa. In the end, it is the magisterium that makes the final decision, and that was certainly done in the case of Galileo, not once, but twice.

Be that as it may, geocentrism does not provide you with a case to prove your point by the mere fact that the tradition shows that the belief in geocentrism was what was both accepted from tradition (both Hebrew and Christian) and what the Fathers and medievals exegeted from Scripture in line with that tradition. In fact, geocentric doctrine is one of the best examples of an absolute consensus of Christian doctrine held by the Fathers, since there appear to be no exceptions to the consensus, except possibly Origen. In addition, the patristic consensus was not only confirmed by the decrees of 1616 and 1633 against heliocentrism, the magisterium confirmed the decrees based precisely on what the tradition handed down to them, as Bellarmine told Galileo. Hence, the Church has already showed you that one of the “truths of the faith” is geocentrism, so, according to your own dictum, you should be “deriving the interpretation of the Bible from that truth of the faith,” instead of trying to find a way around it. This is precisely what I have done in my books and movies, and it is a rather easy task since modern science confirms the viability of geocentrism, from Newton, to Mach, to Einstein and beyond. They all admit that their devotion to heliocentrism is made from philosophical grounds, not scientific ones. All the previous “proofs” for heliocentrism have been discredited.

Fr. Robinson to Mark: This leads them to defend a literal interpretation of the Bible in areas that have no direct influence on supernatural truths, *e.g.* a six-day creation, a geographically universal flood, a young earth.

R. Sungenis: The problem here, of course, is that your premise (“that have no direct influence on supernatural truths”) was assumed at the beginning but never proven to be true. You’ve made your own categories and then proceeded to argue from them. But since you have no official Church teaching to back up that premise, then your arguments are necessarily fallacious. Even using your own argumentation your conclusion fails, for what could be more “supernatural” than creation out of nothing and all that is contained therein?

Fr. Robinson to Mark: None of the supernatural truths that we believe as Catholics hinges on these things being true, nor does any of the things that we believe hinge on the earth being the center of the universe.

R. Sungenis: This is another logical fallacy, since the truth of one thing does not depend on whether there are higher and more important truths. The validity of each doctrine is determined by its intrinsic truth, not on whether it reaches a high level of devotion. There is nothing wrong with holding to both the resurrection of Christ and geocentrism, especially if both are taught by the tradition, the Bible and the magisterium.

Fr. Robinson to Mark: Once there was solid empirical evidence that geocentrism was false--this evidence was not provided until the 19th century, long after the Galileo case--the Church was quite happy to accept that the Bible does not teach geocentrism, the conclusion that Galileo had wanted to force on the Church prematurely. At that point, it was clear to Catholics that they should no longer try to force a literal interpretation on passages of the Bible that speak of the earth being fixed and unmoving.

R. Sungenis: So now we have the real reason why you argue as you do. It’s not essentially how we “derive truth” from the Bible; rather, it is based solely on your presupposition that there is “solid empirical evidence that geocentrism is false,” which then leads you to make your own categories of argumentation, which then leads you to believe that the Catholic Church also teaches these categories.

I wish I had talked to you before you published your book. I would have told you, and could very easily prove to you, that this chief premise of yours is categorically false. With all due respect to you as a

priest of the Church, nevertheless, my guess is that you never even considered investigating, on a scientific basis, whether geocentrism is false but, like everyone else, you just assumed that science had “solid empirical evidence” and proceeded to write your book. Ironically, as you make reference to the “19th century” from which the presumed truth of heliocentrism was established, it was precisely in this century that the evidence began to mount that heliocentrism was false, or at the least, could simply not be proven to be scientific fact.

If you think you know otherwise, and can prove it, I welcome you to the debating table. I must warn you, however, that I’ve been here for 15 years already and can inundate you with scientific evidence that will make your head spin. If it doesn’t convince you, it will surely put enough doubt into your head never again to consider scientific claims as an authority, especially when it contradicts our tradition, our Bible and our magisterium.

You can start the debate by giving me your best “solid empirical evidence” that the Earth revolves around the Sun. Just one will do. If you have more, feel free to pile on. But if I can show you that your “evidence” does not make the case, will you be willing to retract your book and reconsider?

Fr. Robinson to Mark: To argue geocentrism on the basis of the Bible today is, then, contrary to the Catholic spirit in reading the Bible.

In the Hearts of Jesus and Mary, Fr. Paul A. Robinson, Holy Cross Seminary, <http://www.holycrossseminary.com>

R. Sungenis: Judging for myself, I didn’t think there was anything in my responses to Fr. Robinson that would cause him to write back to me with a stinging rebuke for even attempting to contact him. But not only was I rebuked, as noted in Fr. Robinson’s March 8, 2018 reply to me, I was accused of having a “lack of intellectual judgment”; that I did “not apply my knowledge very well,” including a subtle hint that I was mentally unstable because I held to geocentrism. Fr. Robinson was declaring to me that, before he ever addressed any of my scientific or historical challenges I presented to him, he considers himself intellectually superior and that for him the matter is not worth discussing. Instead of answering my challenges (which as you can see above are quite pertinent and penetrating) and

showing if, indeed, he has the knowledge to answer and settle the issue—and do so in front of Mark to convince Mark that my conclusions were wrong—Fr. Robinson devolves into the supercilious stance that he has the right to eliminate me from the discussion and resort to insults.

Of course, as we will see later, none of these prideful antics impressed Mark in the least. He, too, began to see Fr. Robinson as a “know-it-all” who huffed and puffed more than he demonstrated his intellectual prowess. But, of course, in a situation like this, Fr. Robinson would use his “Robinson meter” to put Fr. Robinson in the middle and Mark and I at one of the extremes.

Next, notice that as Fr. Robinson says, “That being said, you will understand why I do not want to engage you in a debate,” he is using his made-up accusation of my intellectual inferiority as the basis for why he won’t engage. He also says that he deliberately decided not to contact me before publishing his book for the same reason. I had never written to Fr. Robinson before this. So how could he confidently decide not to contact me before he wrote his book? Well, that comes in his next sentence.

Fr. Robinson: I have read enough of what you have written and enough of what others have written to you (especially this) to be convinced that I will not be able to convince you and you will not be able to convince me.

R. Sungenis: In other words, for Fr. Robinson this confrontation apparently isn’t about trying to get to the truth but of promoting his own agenda, and curse me if I try to thwart that agenda. His self-satisfied position is that he can’t be persuaded out of his position. Imagine that. Fr. Robinson discounts the possibility that he may be wrong when he is challenged by an opponent.

Interestingly enough, the only evidence he provides for his caustic and dismissive behavior is a debate I had 14 years ago with Ken Cole about geocentrism. Despite the fact that Ken Cole himself took down this debate from his webpage many years ago because he knew the best it could turn out to be was a draw between us, Fr. Robinson was intent on using it to prove his case against me. Since he couldn’t find the debate on Ken Cole’s website, Fr. Robinson used Phillip Vaz’s website that has a copy of the

debate so that Fr. Robinson could make it appear as if Ken Cole's arguments are still relevant 14 years later, and he did so without inquiring from Ken Cole whether Ken maintains the same arguments or why he took the debate off his website many years ago.

What comes next is even more insidious. On Fr. Robinson's website, he accuses me of being dishonest about who won the debate between Ken Cole and I.

Question: Have you heard about Mr. Robert Sungenis? He is a Catholic who holds Geocentric position. He offers (or at least used to offer) prize of several thousand for anyone who would prove the Heliocentric system to him. If the Heliocentric system is proven, wouldn't anyone who knows about science win the award?

Fr. Robinson: Answer: I criticize the theories of Robert Sungenis in chapter 7 of my book. First criticism: those theories do not interpret the Bible as a Catholic. According to them, geocentrism is a theological question; in the mind of the Church, it is purely a scientific question. Second criticism: his theories take no fair account of the very solid empirical evidence available in support of heliocentrism. Thus, for instance, he did not give Ken Cole the \$1000 that he promised when Ken Cole refuted his position.¹⁴⁶ Third criticism: if his work were properly scientific, it would take empirical evidence and show how it supports geocentrism. Rather, he a) pokes holes in modern scientific theory; b) proposes that the geocentric model is plausible without providing real data to prove that the earth is actually at the center of the universe.¹⁴⁷

R. Sungenis: As you can see for yourself, Fr. Robinson accuses me of relieving myself of having to pay Ken Cole the \$1000 I offered to anyone who could prove geocentrism wrong. In other words, Fr. Robinson—a Catholic priest sworn to tell the truth—decides, without any evidence beyond his own opinion, to make me look morally corrupt, as if I was stealing money from Ken Cole.

¹⁴⁶ <http://www.philvaz.com/apologetics/GeocentrismDisproved.htm>

¹⁴⁷ From "February questions," at <https://therealistguide.com/q/%26a>. This quotation from Fr. Robinson was copied from his website on June 26, 2018, about three months after he was asked to take it down due to its false accusation.

Here's the real truth. Before Ken Cole accepted the debate, Ken and everyone else involved were told that I would be the sole judge of who won the debate. If they didn't accept that stipulation, then there would be no debate. Thus I was totally open and above board about the debate's requirements before the debate took place. But Fr. Robinson decided to ignore, or perhaps was unaware of, that stipulation. So Fr. Robinson decides to declare on his own website that I lost the debate and should have paid Ken Cole \$1000.00. He then concludes that because I didn't pay him, then I am dishonest.

Again, it is hard to believe this invidious connection of the dots is coming from a Catholic priest. In reality, the only one being dishonest is Fr. Robinson, since he deliberately ignored the stipulation of the debate that specifically declared I was the sole judge. But even after he was told that specific stipulation on March 6, 2018, he maintained his position that I was dishonest. In other words, Fr. Robinson avoided the stipulation that I was the sole judge of the debate so that he could then accuse me of being dishonest. On his website, he then used his classification of me as "dishonest" as a mark against believing what I say about anything. This is just one example—but a very good one—of how Fr. Robinson twists the evidence to his point of view and makes conclusions that are unwarranted. In other words, Fr. Robinson is very quick to point out what he perceives as other people's faults, but very reticent to see his own, even when they are brought to his attention.

As for Fr. Robinson's other two points, namely, (1) my *"theories do not interpret the Bible as a Catholic. According to them, geocentrism is a theological question; in the mind of the Church, it is purely a scientific question"* and (2) if my *"work were properly scientific, it would take empirical evidence and show how it supports geocentrism. Rather" I "poke holes in modern scientific theory"* and *"propose that the geocentric model is plausible without providing real data to prove that the earth is actually at the center of the universe,"* are certifiably false.

As we will see more later, Fr. Robinson has a quixotic way of determining what correct "Catholic" exegesis of the Bible is when, for example, he allows himself to put billions of years into the text of Genesis 1 that only has six days; yet he insists this exorbitant number is correct because

modern radiometry has told him that the universe is billions of years old. Suffice it to say, Fr. Robinson accepts their conclusions without the slightest critical evaluation—something I will demonstrate in detail.

Second, as we will also see later, Fr. Robinson holds that geocentrism is not a theological question and is only a scientific one. As you may recall, however, this was one of the very reasons I challenged Fr. Robinson in my March 6, 2018 letter to him, but which he did not answer since he conveniently dismissed my entire letter as being “inappropriate.”

The point I raised to Fr. Robinson in that letter was that if geocentrism wasn't a theological issue, then why did the Catholic magisterium call its rival, heliocentrism, a “formal heresy,”¹⁴⁸ and condemn Galileo as “vehemently suspect of heresy,” both in 1616 and 1633? Heresy is the title given to theological aberrations, not scientific ones. Obviously, the reason was that the Church, in her divinely guided and traditional interpretation of the Bible, declared that any propositional truth in the Bible, whether it be that Christ rose from the dead or the sun revolved around the Earth, directly related to the veracity of Holy Scripture. If one part could be wrong, then the whole part could be wrong, and therefore no part could be right.

But, of course, Fr. Robinson comes from another “worldview” in which he and his progressive colleagues don't accept that traditional norm any longer. For them, the Bible is only inspired when it teaches about “religious truth,” thus giving themselves the right to dismiss anything the

¹⁴⁸ The decrees against heliocentrism included in the formal sentence against Galileo Galileo, approved and facilitated by Pope Urban VIII, June 22, 1633: “Che il sole sia centro del mondo et immobile di moto locale, è propositione assurda e falsa in filosofia, e formalmente heretica, per essere espressamente contraria alla Sacra Scrittura.” (Translation: “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”); “Che la terra non sia centro del mondo nè immobile, ma che si muova etiandio di moto diurno, è parimente propositione assurda e falsa nella filosofia, e considerate in teologia ad minus erronea in Fide.” (Translation: “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”).

Bible says about the cosmos, history, chronology, geography, *etc.* This is what Fr. Robinson calls, “Catholic” interpretation when, in reality, it is a pseudo-Catholic interpretation seeking to make itself the accepted Catholic interpretation. In the end, Fr. Robinson has much more faith in modern radiometry than he does in Scripture or the 17th century magisterium that judged the meaning of Scripture for us. Fortunately, this pseudo-scientific hermeneutic will be exposed for the fraud that it is when we do a thorough critique of it later in this paper.

As for Fr. Robinson’s second accusation (if my “*work were properly scientific, it would take empirical evidence and show how it supports geocentrism. Rather*” I “*poke holes in modern scientific theory*” and “*propose that the geocentric model is plausible without providing real data to prove that the earth is actually at the center of the universe*”), I can always tell when someone has not read my book series, *Galileo Was Wrong*, and instead bases his criticism of geocentrism on what some critic said about them. The critics invariably leave out the “real data” that I bring forth showing the Earth is in the center of the universe.

The reason I can safely say that Fr. Robinson hasn’t read my books or watched our movies is that they both contain literally thousands of pages of scientific evidence providing “real data” to show the Earth is actually in the center of the universe—evidence that I don’t see once discussed in Fr. Robinson’s book (e.g., the 1887 Michelson-Morley experiment; the 1913 Sagnac experiment; the 1925 Michelson-Gale experiment; the 1999-2013 CMB data showing Earth at the central universal intersection of the dipole and quadrupole; the 2005 SSDS evidence of the spherical formation of galaxies around the Earth; the allowances from both Newtonian and Einsteinian physics for a geocentric universe; the admission from Hubble why he created the expanding Big Bang universe (*i.e.*, to escape the evidence from redshift that the Earth was in the center); evidence from quasar formation; evidence from BL Lacerates; evidence from binary stars, and many other evidences too many to name.

In reality, it is Fr. Robinson who comes to this discussion without dealing with his opponents’ objections. Ironically, he is the one who “pokes holes” in the alternatives without providing real data to prove his point. As we will see later, Fr. Robinson proves this when, in all the 527 pages of his

book, his only scientific attempt at disproving geocentrism—in the face of the over two-thousand pages in the *Galileo Was Wrong* series of books—is a rather amateur appeal to stellar parallax. This is almost laughable, since not only my book shows how inept parallax is to prove heliocentrism, but secular scientific sources admit that parallax can no longer be used as proof. In the end, I'm sorry to say, this one instance itself shows that either Fr. Robinson didn't do his research well enough before he wrote his book, or, even worse, that Fr. Robinson knows what the alternative is but deliberately hides it from his reader. That Fr. Robinson didn't even mention there exists a viable geocentric alternative to heliocentric parallax means either he is ignorant or is deceiving his audience.

Be that as it may, after the way I saw Fr. Robinson had treated the Ken Cole incident, at this point I began to think seriously whether he was in possession of his own faculties. But following proper protocol, I sent an email to Fr. Robinson warning him of his false accusation in the Ken Cole issue and I demanded that he take it down. I gave him 10 days to do so before I said I would raise the matter to a higher level. But not only did he not respond to me or apologize, the same accusation is still on his website with apparently no intention to remove his scurrilous lie. Again, this is a Catholic priest purporting to tell everyone else how to live an honest life in his book, *The Realist Guide to Religion and Science*.

Since I had not heard from him, I decided to write another email on June 7, 2018:

Fr. Robinson,

A few months ago I asked you to take down from your website your false and scurrilous accusations that I was being dishonest regarding the R. Sungenis versus Ken Cole debate. As I explained to you, the parameters of the debate, which Ken Cole was completely aware of, is that I would be the final judge of who won the debate if any, regardless with whether you agree with those parameters or not.

Did you take down the false accusation?

Second, I gave you a ream of scientific evidence why your use of stellar parallax to disprove geocentrism is false. I noticed after reading your book, Chapter 7, that stellar parallax is the only evidence you offer that geocentrism is incorrect.

Did you look at the additional evidence I sent you, and did you do any independent study afterward into this matter, and if so what did you find?

Third, I also gave you much scientific information directly from Newton and Einstein that a geocentric universe is completely viable and that any modern scientist worth his salt knows this is the case. Did you have time to reflect on this information, and/or did you do your own independent investigation into the issue yourself?

At the present time, since I am done with a project I was working on when we last engaged emails in March, I am devoting my full time to writing a critical review of your book (*The Realist Guide to Religion and Science*). I will be using excerpts from our email exchanges; information from your website; and information from your book.

If you have not taken off the false accusations on your website, then I will be forced to tell the whole story in my review of your book, and I can assure you that it will not look good for you. If you have taken it off, then I will not mention the Ken Cole issue in my book.

If you choose not to respond to this letter and answer the questions posed to you above, then I will state in my review that you were contacted by me about these issues but chose not to respond, and I will make my critical conclusions henceforth.

After I am done writing this review, I will post it on my website and advertise it accordingly.

I hope to hear from you.

R. Sungenis: As you can probably guess, there was no reply from Fr. Robinson. Again, it's hard to believe this behavior is coming from a Catholic priest sworn to be an example of God's love, kindness and honesty to his fellow man.

I will now go back three months in time and continue with Fr. Robinson's March 8, 2018 response to me and Mark:

Fr. Robinson: If you would like to see what I have written, it is easily obtainable online. You will find there that I differ from you in my theological, philosophical, and scientific views. Both

literally and metaphorically, we have quite different worldviews.

R. Sungenis: So here we have another example of Fr. Robinson's use of "worldviews" as the reason he will not engage me in front of Mark. If this tussle were just between Fr. Robinson and I, I would just wave it off. But since Mark—an earnest inquirer—is the crucial witness to this exchange, it becomes very important. It is quite evident that Fr. Robinson definitely wants to convert Mark to his way of seeing things. If so, it would behoove Fr. Robinson to make his case to Mark, but he didn't do so since he didn't address any of the challenges I brought to his attention. They were all dismissed because of my "worldview."

Fr. Robinson to Mark: Mark: let me encourage you not to be a man of one author. You must study these issues carefully for yourself and form your opinion independently of Sungenis. The reason that I say this is that I find it strange that you would engage Sungenis to answer me instead of answering me yourself. This would seem to indicate to me that he has wowed you with his arguments but you have not fully understood why you believe him to be right. If he makes your head spin in trying to convince you that the Earth does not spin, that should not lead you to conclude that he is right. Rather, you must understand his arguments and compare them with contrary arguments that you also understand before you can be in a position to make a proper intellectual judgment.

R. Sungenis: So now Fr. Robinson wants to shift the blame for not engaging me away from himself and put it on Mark for listening to what I have to say. Fr. Robinson wants to make it look as if Mark is biased instead of Fr. Robinson's answer being very weak and unconvincing to Mark. The truth is, by Mark's reading of Fr. Robinson's book he had already listened to much of what Fr. Robinson had to say and it was the very reason Mark wrote to me, since he was disturbed by Fr. Robinson's conclusions and wanted a second opinion.

Fr. Robinson to Mark: I invite you to start with my own book. There you will find, in theology, the Catholic perspective on the relation of the Bible to science.

R. Sungenis: All I can tell you at this point is, after reading Fr. Robinson's book, *The Realist Guide to Religion and Science*, I can safely conclude that Fr. Robinson really doesn't know what the "Catholic perspective" is. I mean that sincerely, after being in science and religion for over 40 years. To be fair, I would say Fr. Robinson knows a lot about philosophy and thus the first six chapters of his book are worth reading. In the remaining chapters Fr. Robinson often fails in applying the very method he so studiously outlined in the first six chapters, and thus he is hoist by his own petard.

Fr. Robinson to Mark: There you will find, in philosophy, the proper balance between empirical evidence and theoretical concepts.

R. Sungenis: I can safely say that Fr. Robinson avoids much of the empirical evidence, that is, if it doesn't already agree with his made-up mind about what the evidence should show.

Fr. Robinson to Mark: There you will find, in science, a clear and easily understandable explanation of stellar parallax, a scientific fact which alone is sufficient to refute geocentrism.

R. Sungenis: As we can see, instead of answering Mark's specific questions, Fr. Robinson merely promotes himself as fair and balanced, which is based on his personal belief that "stellar parallax" disproves geocentrism. I must reiterate that his position on parallax shows that Fr. Robinson isn't the scientific expert he purports to be, since any scientist worth his modern salt today, given the explanation that is detailed in *Galileo Was Wrong* and secular sources, would never offer stellar parallax as a disproof of geocentrism, since everyone in-the-know who has studied the issue realizes the geocentric system can produce stellar parallax just as easily as the heliocentric system can. As we will see a few pages later, everyone knows this since the 'general principle of relativity' requires it to be the case.

In fact, when Fr. Robinson touches upon this subject in Chapter 7 of his book, he is either not aware there is a geocentric stellar parallax (or worse, he is hiding it from his reader), much less does he show any capability of being able to argue against it. It is really sad to see someone spend so

much time and effort on a book and yet stick a sword right through the heart of it by revealing to the reader that he has no knowledge of his opponent's position, and is not even willing to engage with someone who can enlighten him, which I invited him to do. This shows that Fr. Robinson is a close-minded individual who can be every bit as "extreme" as those he accuses throughout his book. Unfortunately, his reliance on an old but discredited proof has been the same knee-jerk reaction with almost the entire SSPX on this issue. They pretend they know the science, but when challenged, they always back down.¹⁴⁹

Fr. Robinson to Mark: Or just speak to any real scientist and he will tell you that neither Newtonian nor Einsteinian physics allow for geocentrism. In a Newtonian universe, lighter bodies rotate around heavier bodies, and, since the Sun is a million times the size of the earth, the gravitational center of the two is the Sun. In an Einsteinian universe, there is no center of the universe.

R. Sungenis: It's hard to believe that Fr. Robinson is saying these words. It again shows that he is ignorant of the science or he doesn't care what the other side has to say. As we will see in a few pages, in my third letter to him, I quoted verbatim from both Newton and Einstein to show that they both believed a geocentric universe was certainly viable from the known laws of science, but Fr. Robinson refused to accept that evidence, even when quotations from Newton and Einstein were spoon fed to him.

Fr. Robinson to Mark: One last remark: I am a priest. It is my duty to assist souls on their way towards heaven. I must make use of the grace of Our Lord Jesus Christ to heal the wounds that sin inflicts on our intellect, on our will and on our passions. When I discover that people are being sold an intellectual package that errs in theology, philosophy, and science all at once, it is only natural for me to attempt to rescue souls from a mental imbalance that can only harm them. This is the purpose

¹⁴⁹ On another occasion, an SSPX member, Jason Winschel, wrote an article for the SSPX magazine, *The Angelus*, titled, "Galileo, Victim or Villain," for the October 2003 issue. A few months after the article was published, I approached the editor of *The Angelus* and asked if he would allow us to write a rebuttal for the sake of fairness. He declined, even after an appeal.

of my book. I am not out to attack anyone because of who they are, the way they part their hair, or anything like that. Rather, I wrote my book because I realize the important role that proper intellectual balance plays in our spiritual life.

R. Sungenis: So after Fr. Robinson: (1) slanders me by making a false accusation in the Ken Cole case; (2) refuses to take down the false accusation or even discuss it with me for three months and counting; (3) after he refuses to engage with the contrary evidenced I presented to him from Newton, Einstein, and stellar parallax, Fr. Robinson pulls the “I am a priest” card to make it appear that he is above reproach in these matters. My only advice to Fr. Robinson is, if he is so concerned about “saving souls,” he ought to take out the log in his own eye and only then will he be able to take the speck out of someone else’s.

After this exchange, I wrote an email to Mark explaining what happened, with a copy to Fr. Robinson.

March 9, 2018

Dear Mark,

Since Fr. Robinson has decided not to debate the statements I made defending geocentrism cosmology from a scientific, traditional, biblical and magisterial framework, I have no choice but to respond to you, with a complimentary copy for Fr. Robinson. It is my hope, nonetheless, that he will diligently consider what I have written, as I know you will, Mark. As you know, Mark, I got your permission to write to Fr. Robinson before I did so, and my remarks to Fr. Robinson were certainly not of a personal nature that were meant to attack him in any way; rather, it was merely a rebuttal to the propositions about geocentrism that he was trying to use to convince you otherwise. As it turns out, instead of answering the historical, scientific and ecclesiastical challenges I brought to his attention, Fr. Robinson choose to categorize them as some kind of intrusion on his privacy (e.g., “unsolicited email”) and a sign of a lack of proper character (“lack of prudence”) and an example of an incapacity to reason (e.g., “lack of intellectual judgment”). I will henceforth show that these judgments against me are not true.

I think it is fair to point out here, Mark, that Fr. Robinson's motive for not debating the issue any further in front of you is because he has made up his mind and will no longer consider a contrary opinion. That is not the mark of a scientist. A true scientist is one who is always open to correction or modification. After all, almost every scientific view of the past has been overturned by what was discovered in the future. Anyone who closes himself off to future discovery and correction, is not a true scientist, or even a true theologian.

Incidentally, the reference Fr. Robinson makes above to the website of Phillip Vaz (especially this) was a debate I had 14 years ago with an amateur scientist named Ken Cole when I was just starting out on the issue of geocentrism. Although at that time my arguments were somewhat elementary compared to what they are now (as you can imagine), they were good enough, interestingly enough, wherein Mr. Cole and Mr. Hoge conceded the debate about a year later, acknowledging that my position was viable and could not be discredited, which then led them to take down all the material on their own website against geocentrism. Hence the only place that debate can be found is on Mr. Vaz's website, and Mr. Vaz, I can assure you, is not a scientist and has no degrees or experience in the subject, but merely posts material that agrees with his already made-up mind.

As for what Fr. Robinson has read of my present material, he does not identify, so it is hard to say what he is referring to. I do know this, however. Since Fr. Robinson, in his present letter, refers to "stellar parallax" and "Newton" as his only proofs against geocentrism, it appears that he has not delved deeply enough into my material or simply hasn't read it at all, since both those topics are covered in depth. My educated guess is that Fr. Robinson has read very little of what I have published nor has he seen the movies I have released; that you have seen and read more than he has, and he can correct me on that if it is not the case. In brief, anyone who makes the argument today that either stellar parallax or Newton automatically discredits geocentrism simply doesn't know the science, and that can be proven quite easily, as you will see below.

First, I think it should be said that when a reviewer asks an author for a copy of his material so that an appraisal can be made of it, the author will commonly send a complimentary copy to the reviewer.

Second, I think it is well worth pointing out that Fr. Robinson is again trying to build walls or circle the wagon instead of investigating if there is anything he may have overlooked or misinterpreted. Again, that is not the mark of a true scientist, and not even a theologian or biblical interpreter. We must always be open to correction.

Fr. Robinson: Mark: let me encourage you not to be a man of one author.

R. Sungenis: Mark, correct me if I'm wrong, but I don't think you ever claimed to be the "man of one author," nor would I suspect such of you since you are obviously a man who is searching for the truth, and thus took the time to introduce two opponents with differing views to determine, in your own mind, which of the two had the truth. I compliment you on that, since many other people simply form knee-jerk reactions to such material.

Fr. Robinson: You must study these issues carefully for yourself and form your opinion independently of Sungenis.

R. Sungenis: I think it is rather obvious, Mark, that Fr. Robinson is implying that, so far, you are merely some sort of sycophant who latches on to the first thing he sees and doesn't have the ability to find the truth when faced with two opposing positions. Please think more highly of yourself than the stereotype Fr. Robinson appears to be making of you. In fact, I would be the first to tell you to read many more opinions than mine. In any case, what seems to be happening here is that Fr. Robinson doesn't like the fact that you are persuaded by the arguments I bring to the table, as is implied below in his next statement.

Fr. Robinson: The reason that I say this is that I find it strange that you would engage Sungenis to answer me instead of answering me yourself. This would seem to indicate to me that

he has wowed you with his arguments but you have not fully understood why you believe him to be right.

R. Sungenis: I don't find it "strange" at all, Mark. Obviously, you are still thinking these things out, and that is rather a long process with such esoteric subjects as geocentrism. Men have been debating this topic for centuries. We can imagine how hard it might be for some who don't have the scientific, theological and biblical expertise to do so. So, this led you to inquire of someone else, namely, Fr. Robinson, for an opposing opinion in order to evaluate your own thinking or conclusions, and that's perfectly normal.

Unfortunately, when you did so, you found that Fr. Robinson refuses to answer the challenges given to him, and instead, made it a point, several times in his letter, that he has no intention of answering them. So let's turn the tables on him. Let's ask Fr. Robinson the same thing he asked you: "Why is it, Fr. Robinson, that you want Mark to answer the questions "instead of answering me yourself? After all, you claim to be the expert and you consider Mark a novice."

Fr. Robinson: If he makes your head spin in trying to convince you that the Earth does not spin, that should not lead you to conclude that he is right. Rather, you must understand his arguments and compare them with contrary arguments that you also understand before you can be in a position to make a proper intellectual judgment.

R. Sungenis: Notice here, Mark, that, on the one hand, Fr. Robinson suggests "you must understand his arguments and compare them with contrary arguments," but, on the other hand, preempts my arguments by describing them as "making your head spin in trying to convince you that the Earth does not spin." Now, is that fair? Hardly. If Fr. Robinson wanted to be fair and non-prejudicial he could have simply said, "Mark, listen to both sides of the argument and do your best to determine which one has the truth. That is the best you can do. God be with you."

Fr. Robinson: I invite you to start with my own book.

R. Sungenis: Of course. Start with his book. I'll even buy the book for you, Mark. If you do, here is what I suggest. Check off all the places in the book with which you have an issue. Then run them by me, and I will give you my side of the story, and you can then judge for yourself who is telling you the truth.

Fr. Robinson: There you will find, in theology, the Catholic perspective on the relation of the Bible to science.

R. Sungenis: Well, I think what you will find, Mark (and excuse me for being a little presumptuous here since I haven't read Fr. Robinson's book yet, but have read many like them who have the same "worldview"), that Fr. Robinson's book is based on the presupposition that Copernicanism is true, beyond the shadow of a doubt, if I may. Hence it is the absolute truth upon which he bases many of the propositions in his book. In modernism it's called "the Copernican Principle," which is why we named our movie, *The Principle*. After that is known, you can then follow the bread crumbs and predict that Fr. Robinson will do the same thing that Galileo did (and was eventually condemned for by the Catholic Church), namely:

(1) he will claim that Scripture has no authority regarding history or science (even though we all agree that Scripture is not a science textbook);

(2) he will claim that Scripture is just a spiritual book that is really only concerned with salvation, which liberal theology bases on the clause in *Dei Verbum* 11: "for the sake or our salvation," claiming that Scripture was only inspired in things that were written "for the sake of our salvation," thus emptying *Dei Verbum* 11 of its real meaning (as confirmed by its footnotes) wherein ALL Scripture is inspired and is inerrant, whether it deals directly with salvation or indirectly with salvation, or anything else.

(3) he will claim that any history that is not dealing directly with salvation can either be in error; be interpreted metaphorically; or not be interpreted at all, since it is inconsequential.

(4) he will claim that the history of the Bible was not inspired by God and thus is not inerrant. Since it wasn't inerrant, this is

where the Church of the 17th century—the Church that condemned Galileo—made its biggest mistake. In other words, the Church was misguided into thinking that ALL Scripture was inspired and inerrant and thus proceeded to condemn Galileo on the basis of a false premise.

If you want to see the transcripts in which Galileo argued these very points to the Catholic magisterium, you can find them in my book, *Galileo Was Wrong*, Volume 3. If you want a complimentary copy, I will send you one, free of charge.

Fr. Robinson: There you will find, in philosophy, the proper balance between empirical evidence and theoretical concepts. There you will find, in science, a clear and easily understandable explanation of stellar parallax, a scientific fact which alone is sufficient to refute geocentrism.

R. Sungenis: So what I can surmise from Fr. Robinson's clause, "which alone is sufficient to refute geocentrism," is that he has exactly one piece of evidence, stellar parallax, upon which he will base his scientific argument against geocentrism. If that is the case, then his book is destined for failure, and I want to save him from that eventuality. Fr. Robinson's reliance on stellar parallax shows me quite conclusively that he has either not read my books or he skipped over the matter on stellar parallax unwittingly. It also means that he didn't make himself privy to the many Youtube videos that show stellar parallax can no longer be used as a proof of Copernicanism.

Anyone worth their salt today in scientific academia would not, wittingly, use the stellar parallax argument, and it's easy to show why. The Neo-Tychonic model of geocentrism (an advancement from the Tychonic model of the 1500s) has the stars aligned with the Sun, and the Sun revolving around a fixed Earth on a 1AU radius (instead of the stars being aligned with the Earth as in Tycho's original model). This arrangement will show the exact same stellar parallax claimed by the Copernican system. It is demonstrated by animations in my movies, and also on the CDROM that comes with my books. It would really be hard to miss (that is, if someone actually read my books and saw

my movies) since we make a grand point of it in those published materials.

Even secular universities have finally recognized this truth. Below are the lecture notes of a physics professor at the University of Illinois, for the spring class of 2004:

It is often said that Tycho's model implies the absence of parallax, and that Copernicus' requires parallax. However, it would not be a major conceptual change to have the stars orbit the sun (like the planets) for Tycho, which would give the same yearly shifts in their apparent positions as parallax gives. Thus if parallax were observed, a flexible Tychonean could adjust the theory to account for it, without undue complexity. What if parallax were not observed? For Copernicus, one only requires that the stars be far enough away for the parallax to be unmeasurable. Therefore the presence or absence of parallax doesn't force the choice of one type of model over the other. If different stars were to show different amounts of parallax, that would rule out the possibility of them all being on one sphere, but still not really decide between Tycho and Copernicus. In fact, if we don't worry about the distant stars, these two models describe identical relative motions of all the objects in the solar system. So the role of observation is not as direct as you might have guessed. There is no bare observation that can distinguish whether Tycho (taken broadly) or Copernicus (taken broadly) is right.

If you want to see the reference source for this statement and anything you ever wanted to know about both stellar parallax and stellar aberration, they are in my book, *Galileo Was Wrong*, Vol. 1.

Fr. Robinson: Or just speak to any real scientist and he will tell you that neither Newtonian nor Einsteinian physics allow for geocentrism.

R. Sungenis: Again, I can tell immediately from his statement, Mark, that Fr. Robinson has not read my books or seen my movies. Interestingly enough, many "real scientists" have

become familiar with the geocentric arguments and, to a man, those “real scientists” have admitted that geocentrism, both from Newtonian and Einsteinian physics, will allow for geocentrism on a scientific basis. Just by happenstance, I ran across one yesterday that I can share with you. This man has a Ph. D. in quantum physics and writes books for children on physics, and said the following (notice that he refers to the same “Neo-Tychonic model” that I did):

Geocentrism

Is it possible to construct a modern geocentric model?

Gregory Snelgar, Physicist[1]

Answered Aug 31, 2016

A geocentric model would also be an ego-centric model. It would require you to believe that the whole universe revolves around you.

But mathematically it would actually be simpler and more elegant. Perhaps you are thinking of the Ptolemaic system which required complex and inelegant “deferents” and “epicycles”.

If we take the neo-Tychonic model, it is actually simpler and more elegant than the current standard model. The other planets orbit the Sun as per modern observations, but the Sun orbits the center of mass of the universe, which is the Earth.

This is observationally identical to the standard model but philosophically unwelcome.

Mathematically it is more elegant because it does away with cosmic inflation, the Lorentz contraction, etc. which were designed with the specific goal of avoiding an egocentric model.

I chose him for you to read because, as you can see, he has no intrinsic love for geocentrism (referring derogatorily to it as

“ego-centrism”), and also says that it is “philosophically unwelcome.”

So why, if he admits geocentrism is “more elegant” and doesn’t need *ad hoc* fixes such as “cosmic inflation, the Lorentz contraction, etc.” and admits that these *ad hoc* fixes were “designed with the specific goal of avoiding a geocentric model,” would he be reticent to accept geocentrism based on “philosophy”?

I think you know why, no? Because an Earth in the center of the universe around which everything else revolves not only smacks of a God who, without using time or chance, placed it in the middle of the universe to be the apple of His eye, but it would also mean that the foundation of modern physics—the Copernican Principle—has crumbled and that science must go back to the drawing board and start over again. It also means the Catholic Church was right when it condemned Galileo, which also means that Scripture is, indeed, inspired and inerrant when it speaks about history and the cosmos, which also means our Catholic patristic heritage was right when it rejected Pythagoras’ heliocentric universe and opted for the geocentric.

As you can see, a lot rides on whether geocentrism is right and heliocentrism is wrong. So much so that “philosophically” people like Snelgar can’t bring themselves to accept it, even though they know that heliocentrism has been propped up by *ad hoc* fixes such as cosmic inflation and the Lorentz contraction.

By the way, do you know what the Lorentz contraction is, Mark? Let me tell you. In 1887 Albert Michelson did an experiment that showed the Earth wasn’t moving in space, just like the Bible says. So, what did he and his science colleagues do in order to get out of this “philosophical” dilemma? Lorentz claimed that Michelson’s apparatus shrank when he did the experiment, which resulted in making it appear that the Earth was motionless! Can you imagine that? There was, of course, no empirical evidence that Michelson’s apparatus shrank, but they had no other answer, so they ran with it, and it became world famous to the point that it is the most used equation in physics today.

Do you know what “cosmic inflation” is that Dr. Snelgar mentions? Let me tell you. It was invented by Edwin Hubble in 1929 in order to keep the Earth out of the center of the universe in the face of all the evidence Hubble was gathering in his telescope that showed the Earth IS in the center. Since Hubble saw the redshift of galaxies everywhere he looked, he realized that, without any blueshifts, this put the Earth in the center. Hubble didn’t like this “philosophically,” so he invented a universe without a center, otherwise known as a “balloon” universe, and he put Earth and all the other galaxies on the surface of the balloon (i.e., Earth has no center to occupy so it must go to the surface of the balloon). In order to create the redshift he saw in his telescope, Hubble made the balloon expand (i.e., “cosmic inflation”) and then he could claim that the redshift appeared because each galaxy was drifting away from the other and this separation caused a redshift of their light (NB: when light is expanded it causes its red lines to be elongated).

Let’s hear what motivated Hubble to make such an ad hoc universe, from his own book, *The Observational Approach to Cosmology*, 1937:

...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.[2]

...there must be no favored location in the universe [i.e., no central Earth], no center, no boundary; all must see the universe alike. And, in order to ensure this situation, the cosmologist postulates spatial isotropy and spatial homogeneity....[3]

Stephen Hawking, another atheist, said the same thing in his recent book:

...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.[4]

There is, however, an alternate explanation: 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: it would be most remarkable if the universe looked the same in every direction around us, but not around other points in the universe.[5]

Do you see what's happening here, Mark? "Friedmann's second assumption" was the "balloon" universe that Hubble invented. Hawking admits that they had no proof for this "balloon" alternative. In fact, he tries to use "modesty," not science, as the basis for choosing the balloon model over the geocentric model. If anything, it's a feigned modesty, since Hawking does everything he can these days to knock God of the stage of human history. But an Earth in the center of the universe certainly does lead us right back to God, since any fool knows that if one is in the center, it ain't going to happen by time and chance but that Someone had to place it there to be special.

I could go on and on with examples like Hubble and Hawking to show you, but I think you get the picture, no? So let's go on with Fr. Robinson's letter.

Fr. Robinson: In a Newtonian universe, lighter bodies rotate around heavier bodies, and, since the Sun is a million times the size of the earth, the gravitational center of the two is the Sun.

R. Sungenis: Yes, taken as he first presented it in 1687, it was seeking to support the Copernican system. A "solar system" that

has a massive sun and a small Earth was basically all they knew at that time. They had little idea how the stars or the rest of the universe contributed to the issue, the exact converse of what we see with Hubble and Hawking above.

In the small frame in which he was working, Newton was right to say that the smaller Earth had to revolve around the larger Sun. This is why Newton's system can still be used today in local frames, but once we get beyond the solar system, Newton's mechanics do not work, which is seen, for example in spiral galaxies that rotate 10 times faster than Newton's laws allow and why science has invented another *ad hoc* substance, "dark matter," to compensate for the failure.

What modern science discovered after Newton was that there was a much larger frame that had to be considered in determining what revolves around what. They found that Newton's description of that larger frame as merely "Absolute Space" was wrong. It turned out to be just another *ad hoc* invention that was used to make the small frame work correctly, since Absolute Space had no empirical evidence of itself.

(NB: Newton needed an Absolute Space since, if he was going to claim that objects, due to inertia, moved in a "straight line," there had to be some way of defining a straight line, and that could only be so if the space the straight line was drawn in, or moved in, was absolute and did not move itself).

Once Absolute Space was abandoned, it meant that we could no longer consider the universe as non-moving (which is why Einstein could later invent "space that curved" when exposed to gravity. In other words, his space "moved" whereas Newton's did not move since it was Absolute).

If the universe can move, that means it can rotate. If it can rotate, it will have a center of mass around which it rotates. Hence it didn't take much afterward to realize that if we see the stars rotating around us every day and they are part of the universe, then the universe could be rotating around us everyday, with Earth as its center of mass. This is called the general principle of relativity (not to be confused with Einstein's

General Relativity, which is an offshoot of the general principle of relativity).

They also discovered something else that was astounding. Whereas Newton's small frame system in Absolute Space had to have the centripetal force of the Sun (i.e., gravity) hold the planet while the planet accelerated by its own inertia or momentum in a straight line (which then resulted in a curved path around the Sun), the new system in which the universe rotated around a fixed Earth would create forces similar to the centripetal force of gravity, which, in turn, would keep the Sun and stars revolving around a fixed Earth.

These forces are known as the inertial forces: centrifugal force, Coriolis force and Euler force. All three of them will be created by a rotating universe. The centrifugal force will try to pull objects outward; the Coriolis force, which is twice the strength of the centrifugal force, will pull objects sideways and inward; and the Euler force will pull objects just a little sideways. When all these forces are combined (as they would be in a rotating universe) they end up creating a centripetal force on the object which draws it continually toward the center axis so that as the body is accelerating, it is balanced by the centripetal force that draws it to the center. (And it doesn't matter how large or small that object is).

In other words, if the Sun were the object rotating around the universe's center of mass (where Earth is located), the Sun would have the above centripetal force from the universe's angular momentum on it continually, and this force would keep the Sun fixed in its 93-million-mile radial orbit, going around the Earth, *ad infinitum*, as long as the universe is rotating.

The most interesting thing about this discovery is that Newton hinted at it in his 1687 *Principia*, but the page that contained it was supposed to be the last page of the *Principia* but was never published with the *Principia*, for reasons that no one knows. But the words of that page, recently discovered, say precisely what I describe above. Here is Newton in his own words:

In order for the Earth to be at rest in the center of the system of the Sun, Planets, and Comets, there is required

both universal gravity and another force in addition that acts on all bodies equally according to the quantity of matter in each of them and is equal and opposite to the accelerative gravity with which the Earth tends to the Sun...

For, such a force, acting on all bodies equally and along parallel lines, does not change their position among themselves, and permits bodies to move among themselves through the force of universal gravity in the same way as if it were not acting on them.

Since this force is equal and opposite to its gravity toward the Sun, the Earth can truly remain in equilibrium between these two forces and be at rest. And thus celestial bodies can move around the Earth at rest, as in the Tychonic system.[6]

Notice that Newton says, “there is required both universal gravity and another force in addition that acts on all bodies equally...” We now know that this “additional force” is the inertial forces of centrifugal, Coriolis and Euler forces. The modern-day physicist, Steven Weinberg, in his new book, *To Explain the World* (2015), is partially credited with bringing this new evidence to light, which he obtained from George E. Smith at Tufts University, with whom I have personally corresponded. In his his book, Weinberg puts it this way:

If we were to adopt a frame of reference like Tycho’s in which the Earth is at rest, then the distant galaxies would seem to be executing circular turns once a year, and in general relativity this enormous motion would create forces akin to gravitation, which would act on the Sun and planets and give them the motions of the Tychonic theory. Newton seems to have had a hint of this. In an unpublished ‘Proposition 43’ that did not make it into the Principia, Newton acknowledges that Tycho’s theory could be true if some other force besides ordinary gravitation acted on the Sun and planets.[7]

Notice Weinberg’s sentence, “this enormous motion [of the universe rotating] would create forces akin to gravitation, which

would act on the Sun and planets and give them the motions of the Tychonic theory.” The “forces akin to gravitation” are the centrifugal, Coriolis and Euler forces of which I described above. These are the forces “akin to gravitation” that are created by a rotating universe around a fixed Earth. I have a copy of Newton’s “Proposition 43” that was written in Latin, and it appears in *Galileo Was Wrong*, Vol. 1. Check it out for yourself. It is fascinating reading.

By the way, Newton also had centrifugal, Coriolis and Euler forces in his small frame system, but they were only considered “fictitious” forces, since they didn’t exactly fit into his system. It is only when you have a rotating universe around a fixed Earth that these three forces actually become real forces and do their work accordingly, that is, keeping the Sun and stars revolving around the Earth. But when NASA sends up space probes today, they have to add in, by hand, the three inertial forces, otherwise they could never get the probe to go where they need it to go. This is why today physicists say that Newtonian mechanics has an inherent “defect.”

Fr. Robinson: In an Einsteinian universe, there is no center of the universe.

R. Sungenis: Not exactly. What Einsteinian math shows is that any *mathematical* point in the universe could be made the center, but General Relativity has no way of finding the real center. This doesn’t mean there isn’t a real center; it only means that General Relativity cannot positively affirm where it is. But that is the “defect,” if you will, of General Relativity. The fact remains, however, that General Relativity acknowledges that if the Earth is the center and the universe rotates around it, then all the mechanics of physics work properly. Einstein revealed this in both 1914 and 1950, in the following statements:

We need not necessarily trace the existence of these centrifugal forces back to an absolute movement of K' [Earth]; we can instead just as well trace them back to the rotational movement of the distant ponderable masses [stars] in relation to K' whereby we treat K' as 'at rest.'...On the other hand, the following important

argument speaks for the relativistic perspective. The centrifugal force that works on a body under given conditions is determined by precisely the same natural constants as the action of a gravitational field on the same body (i.e., its mass), in such a way that we have no means to differentiate a 'centrifugal field' from a gravitational field....This quite substantiates the view that we may regard the rotating system K' as at rest and the centrifugal field as a gravitational field....The kinematic equivalence of two coordinate systems, namely, is not restricted to the case in which the two systems, K [the universe] and K' [the Earth] are in uniform relative translational motion. The equivalence exists just as well from the kinematic standpoint when for example the two systems rotate relative to one another.[8]

Let A be a system uniformly accelerated with respect to an "inertial system." Material points, not accelerated with respect to I, are accelerated with respect to A, the acceleration of all the points being equal in magnitude and direction. They behave as if a gravitational field exists with respect to A, for it is a characteristic property of the gravitational field that the acceleration is independent of the particular nature of the body. There is no reason to exclude the possibility of interpreting this behavior as the effect of a "true" gravitational field (principle of equivalence).[9]

[1] <https://www.amazon.com/Gregory-Snelgar/e/B000MEWPXA>

[2] *The Observational Approach to Cosmology*, 1937, pp. 50, 51, 58-59.

[3] *Ibid.*, p. 63.

[4] *A Brief History of Time*, 1988, p. 42. Hawking says the same on page 47: "This could mean that we are at the center of a great region in the universe..."

[5] *A Brief History of Time*, p. 42.

[6] Latin: Ut Terra quiescat in centro Systematis Solis Planetarum & Cometarum, requiritur et gravitas universalis, et alia insuper vis quae agit in omnia corpora aequaliter pro quantitate materiae in ipsis et aequalis est gravitati acceleratrici qua Terra tendit in Solem, eique contraria est, tendendo secundum lineas parallelas in plagam eandem cum linea quae ducitur a centro Solis ad centrum Terrae...Nam

talis vis in corpora omnia aequaliter & secundum lineas parallelas agendo situm eorum inter se non mutat sed sinit corpora eodem modo per vim gravitatis universalis inter se moveri, ac si non ageret in eadem. Terra vero, cum haec vis gravitati ejus in Solem aequalis sit & contraria, in aequilibrio inter has duas vires manere potest et quiescere. Et sic corpora caelestia circa Terram quiescentem moveri possunt ut in Systemate Tyconico.

[7] Steven Weinberg, *To Explain the World: The Discovery of Modern Science*, HarperCollins, 2015, pp. 251-252.

[8] Einstein's October 1914 paper titled: "Die formale Grundlage der allgemeinen Relativitätstheorie," trans. by Carl Hoefer, in *Mach's Principle: From Newton's Bucket to Quantum Gravity*, eds. Julian Barbour and Herbert Pfister, pp. 69, 71.

[9] A. Einstein, "On the Generalized Theory of Gravitation," *Scientific American*, Vol. 182, No. 4, April 1950, p. 14.

For the record, as noted above, Fr. Robinson received a copy of this long letter I wrote to Mark, but there was no response from Fr. Robinson. So, it can safely be said that Fr. Robinson is in possession of all of the information needed to refute his case against geocentrism, but that he has decided to ignore it all and not respond.

I then wrote a follow up to Mark in reference to Fr. Robinson's views, with a copy sent to Fr. Robinson:

R. Sungenis: Of course. Since you [Fr. Robinson] accepted popular scientific opinion as dogmatic fact, it is easy to understand why you would hold such a position. You really have no choice, left as it is. But high claims require high proof, Fr. Robinson. If you want to take on geocentrism and proclaim from the housetops that we no longer need to read the Bible at face value; and we no longer need to consider the traditional consensus; and we can ignore the magisterium of the 17th century that declared heliocentrism a heresy, and all because you believe that science has proven heliocentrism true and geocentrism false [based solely on "stellar parallax"], then it behooves you to prove your case; otherwise, your book is not worth the paper it is written on.

The choice is yours, of course. If you're not willing to investigate the issue, then there is no further discussion to be had. All I can tell you is, I sleep well at night because I have, indeed, investigated the issue, and thereof I speak. Science and the Bible do not conflict. But just as there are many who misinterpret the Bible for their own agenda, there are many who misinterpret scientific data for their own agenda.

If, in the interim, you would like any material from me (books, movies, papers) introducing you to the scientific issues regarding geocentrism, I will be happy to forward them to you, free of charge.

Then, Mark wrote a letter to Fr. Robinson

March 9, 2018

Dear Fr. Robinson,

Thank you for your reply and advice which is actually what I was doing, since all my learning was from the California public school/.college/ university education system, news media and astronomy/science periodicals that taught me that heliocentrism was a fact and thus I never questioned it until I came to the SSPX. (Which I am grateful to the SSPX and other Traditional priests who taught me about the Frankfurt School, and gave me a Catholic view of the New World Order and the Jewish plot against the Church, etc.). Thus, I had plenty of “contrary arguments” from many authors and only recently begun studying the issues myself independently of the public education system, modern media and modern scientist.

As for engaging Mr. Sungenis rather than answer you myself, (actually I engaged John Salza first - that is why I sent you Mr. Salza's conference). I thought it was only normal to ask help from those who are more knowledgeable and better able to express the issues than oneself. It is similar to when someone ask me about Catholic Tradition or the SSPX in general, some questions I can answer, but if a more detailed explanation is demanded, then I refer them to contact a priest of the SSPX. (I understand that “normal” does depend on upbringing, education and cultural differences, so I can understand that “normal” for one person can seem “abnormal” for another).

And finally, regarding your assumption that I was “wowed” with his arguments but “not fully” understandings why I believe him; that is indeed partly true. I was in-fact “wowed” by the quotes of the scientist and astronomers (that are still trying to prove heliocentrism) throughout the ages to our present times admitting that their evidence is not conclusive and some were honest enough to say that their evidence appears to point more towards geocentrism than heliocentrism and Big Bang randomness. (NOTE: I was not shown these quotes in school and college, nor was it ever mentioned on the various science shows). The truly honest ones even admitted that they cannot accept geocentrism due to philosophical reason. So, I thought I “fully understood” this well, as Mr. Sungenis was just providing direct quotes which seems self evident. From these quotes I can reasonable suspect a motive that most scientist and astronomers have to accept heliocentrism and Big Bank randomness or else:

1. lose funding 2. be ridiculed by peers 3. believe in a God 4. admit that the Catholic Church was right. There appears to be similar parallel motives when it comes to Atheists/Protestants/Novous Ordo Catholics have for not turning to the Traditional Catholic Faith and Morals.

Although, it is true I did not ask any “real” scientist, but I did ask you to critique John Salza’s presentation so I can compare the issue coming from different Catholic viewpoints. And for what it’s worth, an SSPX teacher once talked to a Catholic NASA scientist, and the Catholic scientist admitted that NASA using a stationary Earth for its rocket propulsion equations because the math works, but he did say not to mention it the public.

Thanks again for your time and responses, I truly appreciate it,

Mark xxxxxxxx

P.S. If you truly believe that Catholic geocentrism and Creationist are an “intellectual package that errs in theology, philosophy, and science all at once” which causes “mental imbalance that can only harm them”, then I would suggest that other Traditional Catholics, such as yourself, debate them publicly and take question from the audience. Although you may not convince your opponent, but at least you can help “rescue” the audience. After all, I had to struggle out of the Novus Ordo to get away from the “intellectual package that errs in theology, philosophy, and science” so I do not want to get tricked in going back in.

Mark then wrote a letter to me:

Dear Robert,

Thank you for your responses and explanations. Thanks also, for your generous offer to send me the books, however, when it comes time to ordering those books, I will go ahead and do so myself. I can only pray that Fr. Robinson will read your latest reply and at least remove his reference to Ken Cole <https://therealistguide.com/q%26a> now that he knows that Ken took down all the material on their own website against

geocentrism. I would be very disappointed and scandalized if he were to continue to mislead his readers by keeping a known retracted argument as his proof. Well, we shall see what happens if anything. Thanks again for all your help and information.

May God bless you and Our Lady protect you,

Mark

On March 13, 2018, Mark writes to me again:

Hello Mr. Sungenis,

Below is Fr. Robin's [sic] last reply, as you can see he avoids all my explanations and reduces it to "conspiracy theory".

Thanks again for all your help,

Mark

Fr. Robinson then writes back to Mark:

Dear Mark,

Thanks for your reply. I definitely understand where you are coming from. We as traditional Catholics have very serious grounds for mistrust in many aspects of the world around us. This starts with the revolution in the Church, foisted on us by Modernist clergymen. Obviously, various aspects of modern science, such as evolutionary biology, are extremely suspect.

However, as a priest, I have noticed that sometimes we, as traditional Catholics, can go overboard with mistrust, engaging in a sort of "runaway mistrust". In such a situation, a soul is disposed to mistrust everything. Because of the mistrust, such a soul is actually open to trusting too quickly people of a certain mentality. Who are those people? Generally, people who advance conspiracy theories. The reason why the "runaway mistrust" person is willing to trust conspiracy theories is precisely because those theories are built on mistrust.

In the end, however, it is important that our mistrust have solid evidence to support it. We must not mistrust everything. In the case of geocentrism, we must trust the pre-Vatican II judgment of the Church that it is not a theological issue. I just want to encourage you not to automatically be more willing to believe one opinion over another opinion because the one opinion shows a mistrust of the common opinion and presents an exotic, conspiracy-theory opinion instead.

God bless you and yours,

In the Hearts of Jesus and Mary,
Fr. Paul A. Robinson
Holy Cross Seminary
<http://www.holycrossseminary.com>

I then wrote back to Mark:

Mark, it seems his two boogeymen are: 1) too much mistrust, and 2) that geocentrism is not theological.

I would write back to him and ask why is it ok to mistrust scientist when they are speaking about evolution, but ok to trust them when they speak about heliocentrism and relativity, especially since we already know evolution was built on Copernicanism, and that relativity was invented in order to escape geocentrism. Ask him, “Isn't a rather subjective argument to tell someone they should mistrust one aspect of science but not another”?

I would also ask him that, since he keeps insisting that geocentrism is not a theological issue, what “pre-Vatican II judgment of the Church” is he referring to that says, explicitly, it is not a theological issue.

On March 14, 2018, Mark wrote back to me:

Thanks for the suggestion. I have a strong feeling he will say “heliocentrisim is proven fact, with empirical evidence, unlike evolution” and thus go back in circles despite all the proof you have provided. Especially when he already reduces any contrary

arguments to an “exotic conspiracy theory”. But as for the “pre-Vatican II judgment of the Church”, that should be a good question to ask which hopefully he has a specific answer and not just a vague notion.

Since the email exchanges came to an end, I will add these following points:

In his last email to Mark, Fr. Robinson did precisely what I pointed out in the beginning of this book: he used his own “truth meter” to make himself appear in the middle of two extremes, but he had to make a new truth meter when his first was discovered to be short-sighted. This happened when Mark asked Fr. Robinson how he could deny the science behind geocentrism but then use science to discredit evolution. Fr. Robinson’s answer was to ignore the science behind geocentrism and introduce an *ad hoc* reason why he could do so, namely, because geocentrism is a “conspiracy theory,” or is part-and-parcel with other conspiracy theories. So much for the Fathers, the Bible, the Magisterium that all declare geocentrism a theological and scientific truth.

So, in the end, whether geocentrism is true or not for Fr. Robinson is based on his subjective judgment that to consider it viable is to fall headlong into a conspiracy theory. Throughout his discourse with Mark and I, Fr. Robinson provided no evidence that geocentrism is a “conspiracy,” and, in fact, he failed to show that if it was wrong then: (1) why did the Holy Spirit lead all the Fathers of the Church to accept it? (2) why did the Church decide, in the 1566 Tridentine catechism, to make it part of its doctrinal teaching? and (3) why did the entire magisterium, from 1616 to 1633, condemn heliocentrism as a heresy? Fr. Robinson’s answer to this is another subjective judgment, namely, “we must trust the pre-Vatican II judgment of the Church that it is not a theological issue.”

Fr. Robinson’s answer is false, based on these logical deductions:

- How could the Church not consider geocentrism a “theological issue” when, in fact, the Church decreed heliocentrism a “formal heresy” both in 1616 and 1633? Since when are non-theological

ideas considered a “heresy”? Fr. Robinson, of course, has no answer.

- How could it “not be a theological issue” when, in fact, Cardinal Bellarmine’s whole attack against Galileo was to remind Galileo that the Fathers of the Church were in absolute consensus regarding geocentrism and that the Council of Trent required the Church to hold any such consensus of the Fathers as Catholic doctrine?
- How could it not be a theological issue when, in fact, Scripture teaches geocentrism in many places, and the whole Church, from the Fathers through the medievals, felt compelled to take Scripture at face value and teach the doctrine of geocentrism?

The logical conclusion is that Fr. Robinson doesn’t know what he is saying. Rather, he has chosen a position of his own making and he must defend it no matter how counterintuitive its specific arguments turn out to be, otherwise there will be egg all on his face, not to mention the face of the SSPX that allowed him to publish the book. The basic problem here is that Fr. Robinson has gotten way deep into a subject he is not prepared to argue. He has a good grasp of philosophy, but he has limited knowledge about physics and the mechanics of cosmology.

As I can best surmise, Fr. Robinson didn’t know precisely how to handle geocentrism since he really hadn’t read up on the issue. He figured he could dispense with it rather easily by relying on an old “proof,” namely, stellar parallax, but he wasn’t aware of what the advancements of science had dictated on this very topic, much less other issues germane to it. One can only know these advancements if he keeps up with the literature instead of relying on other people’s websites who are in the dark more than Fr. Robinson.

But perhaps Fr. Robinson was far too busy writing the other parts of his book to give the needed attention to the geocentric issue. So, when he is then challenged on his conclusions about geocentrism, instead of going more deeply into the empirical scientific evidence, Fr. Robinson decides to build a brick wall around himself to dismiss himself from the discussion and resort to judgments against my abilities and character and make labels

like “conspiracy theory,” in addition to making outlandish false claims such as, “the pre-Vatican II Church said geocentrism was not a theological issue.”

In other words, since his book was published before our three-month email exchange, I cannot dismiss the possibility that Fr. Robinson will do what he needs to do to protect his turf so that the book is not recalled for serious errors. This is implied in his attempts to avoid having to confront people like me who want to challenge him on the scientific and theological conclusions he makes. Instead of answering the challenges, he refuses to debate the issue and instead calls those who challenge him either conspiracy theorists or those who “lack intellectual judgment” and are mentally unstable, all the while never giving one iota of scientific evidence to support himself beyond his bogus use of stellar parallax. Can this kind of man really be trusted to give us the truth?

CHAPTER 5

RESPONSES TO FR. ROBERTSON'S WEBSITE Q&A

Now I will deal with some of Fr. Robinson's answers to questions put on his website:

Ask a Question

To ask Fr Robinson a question, just go to the [contact us](#) page.

May Questions

Question: Is it true you propose some kind of Old-Earth Creationism, saying that cosmic evolution is realistic but biological macroevolution is not? If so, does your book explain the formation of planetoids?

Fr. Robinson: Answer: Yes, it is true that I propose what may be called an 'old earth creationism' in my book. The main reason is that there are solid scientific arguments for the Big Bang Theory and for an old earth (4.55 billion years),

R. Sungenis: There are no “solid scientific arguments for the Big Bang Theory” nor for “an old earth.” That is why both are still called “theories.” As the history clearly shows, the Big Bang theory was purposely invented by Edwin Hubble and Fr. Lemaître (a liberal priest who dismissed the details of Genesis 1 as story-filler) to escape the mounting evidence that the Earth is in the center of the universe. But since Fr. Robinson has already rejected geocentrism as a “conspiracy,” he would be inclined to ignore the actual history from Hubble's book, even when it is presented to him, as Mark and I did. Obviously, he dismissed it because it didn't fit into his already made-up paradigm.

As for his biblical exegesis, Fr. Robinson has made it clear he rejects the opening verses of Genesis 1, which says the Earth, made on the First day, came before the sun, moon and stars on the Fourth day. He and his colleagues are so convinced from modern scholarship that they can bypass Genesis' words and replace them with their own cosmological concoctions that a face value rendering of the text is no longer on their exegetical radar

screens. They consider all the words between verse 1, “God created the heavens and the earth,” and verse 26, “God made man in his own image,” as little more than window dressing put there by uninspired primitive people, instead of it being the very word of God, inspired and inerrant, that the Catholic tradition has taught us.

Fr. Robinson does the same with the genealogies of Genesis 5 and 11. They mean nothing to him insofar as providing accurate history and chronology. He, and what I call the “Jaki-Lemaître cult,” are too wrapped up in believing that dinosaurs are 70 million years old and that whatever long-age interpretation modern scientists give to Potassium-Argon decay, they can readily accept it without the slightest critique or even consideration to an alternative short-age interpretation.

Fr. Robinson: ...while there are solid scientific grounds for rejecting macroevolution.

R. Sungenis: The above is typical of what many liberal Catholic scholars are forced to do in the area of cosmogony. It becomes an eclectic exercise in which they borrow from science only when it supports their made-up world and reject it when it doesn't support their view. This ends up creating a monster without a cage—one with long-ages but no real purpose for the long-ages. At least the evolutionists have a logical reason for their long-ages, that is, so the universe and man can evolve. But since Fr. Robinson never gives any critical thought that modern radiometry may be missing the mark, he falls for their long-age trap but then ends up with no useful purpose for the long-ages.

Fr. Robinson: In the book, I discuss the philosophical backdrop to these questions, but I also delve into the scientific evidence....and also the basis for measuring star distances. However, I do not discuss the formation of our solar system.

R. Sungenis: As for his “basis for measuring star distances,” Fr. Robinson merely regurgitates the standard Big Bang interpretation of red-shift without ever considering that today's red-shift interpretation was invented by Hubble to keep Earth out of the center of the universe and to have an excuse for an expanding universe to put Earth on the edge with everything else. The only empirical evidence we have for star distances is stellar

parallax. As it stands, the most parallax can give us, even with the newest equipment, is 300 to 600 light years, and only a small percentage of that is really accurate. But, of course, that number is too small for Fr. Robinson's need for billions of years that he acquires from his dubious investigation into radiometry, and thus he can't properly apply the stellar parallax he promoted.

Fr. Robinson: In short, here is the general view of the book:

Theology – the Church has us believe in a creation in time by an all-wise, transcendent God, as well as the direct creation of Adam and Eve, who are the parents of all humans living on Earth. All questions of the age of the universe and its development, however, are left to science.

R. Sungenis: That statement is not only false, it is a perpetrated lie. The Fathers, the Bible and the official teaching of the Church have never taught long-ages, and modern science has no proof of long-ages. But since Fr. Robinson is forced to come to such a conclusion because of his uncritical acceptance of modern radiometry, then the Bible, sorry to say, is thrown on the trash heap as nothing more than good-intentioned prose with faulty conclusions. This is the “worldview” of Fr. Paul Robinson.

Fr. Robinson: Philosophy – realist philosophy demands that there be a transcendent Being, who is existence itself, to be responsible for the creation and conservation of all beings in the cosmos. But such a being could, in theory, so design beings—at least inanimate beings—that they would develop in an ordered fashion by means of natural laws that He built into the universe.

Fr. Robinson: Science – empirical evidence provides means for arguing probabilistically that the universe, along with space and time, began with a single burst of energy 13.7 billion years ago and then developed by means of extremely fine-tuned laws to produce the stars and galaxies of today.

R. Sungenis: So again, Fr. Robinson tells us to throw out Genesis 1, which tells us the Earth came before the galaxies, and then mix a half-teaspoon of a Singularity with three tablespoons of Inflation to get things going; and add in four tablespoons of Dark Energy so things can continue expanding

after Inflation; and one tablespoon of Dark Matter so that Newton and Einstein don't contradict themselves about gravity; and add in four tablespoons of superluminal speed so the present expansion can go beyond the speed limit of c (but also be confined to c in the primordial expansion in which they need to defend Einstein's Special Relativity), and then add in a half tablespoon of Heisenberg Uncertainty Principle, and viola! you have the universe that Fr. Robinson is advocating.

There is just one thing you need to know. None of the things added in by teaspoons and tablespoons have actually been found in the empirical evidence nature offers, but are desperately needed to make the Big Bang have at least some semblance of respectability. So much for Fr. Robinson's "fine-tuned laws." In the real world, the "fine-tuned laws" were a product of God's creation by fiat, not the process of a Big Bang. If the Big Bang were so "fine-tuned" then it wouldn't need the half-dozen fudge factors listed in the above paragraph. Those factors comprise the "empirical evidence" Fr. Robinson believes in—the evidence one makes up as one goes along. Fr. Robinson is a card-carrying member of the Jaki-Lemaître cult that disregards everything God declared about the Creation, yet needs to give lip-service to God by saying, "God created the heavens and the earth," at the same time they ignore how God *said* he created it and substitute their own idols for the sacred text.

Is Big Bang cosmology just my pet peeve or do other secular scientists feel the same way? In addition to what we covered previously (*e.g.*, Andre Linde, *et al*), here are a few quotations from various secular scientists judging the Big Bang simply on a scientific basis.

Eric Lerner, president of Lawrenceville Plasma Physics in West Orange, New Jersey, is quoted as saying, "This isn't science. Big bang predictions are consistently wrong and are being fixed after the event." ("Did the big bang really happen," M. Chown, *New Scientist*, July 2, 2005, p. 30); He adds:

Finnish and American astronomers, analyzing recent observations, have shown that the mysterious dark matter isn't invisible – it *doesn't exist*....But that's not all: dark matter had to be quite different from ordinary matter...one of the two key predictions of the Big Bang was

the abundance of helium and certain rare isotopes – deuterium (heavy hydrogen) and lithium. These predictions also depend on the density of the universe. If the dark matter was ordinary matter, the nuclear soup of the Big Bang would have been overcooked – too much helium and lithium, not enough deuterium. For theory to match observation, ω for ordinary matter, whether dark or bright, had to be around .02 or .03, hardly more than could be seen. If it wasn't ordinary matter, what could the dark matter be? Around 1980 worried cosmologists turned to the high-energy particle physicists. Were there any particles that might provide the dark matter but wouldn't mess up the nuclear cooking? Indeed, there just might be. Particle physicists provided a few possibilities: heavy neutrinos, axions, and WIMPs (Weakly Interacting Massive Particle – a catch-all term). All these particles could provide the mass needed for an ω of 1, and they were almost impossible to observe. Their only drawback was that, as in the case of cosmic strings, there was no evidence that they exist. But unless ω equaled 1 (thus lots of dark matter), the Big Bang theory wasn't even self-consistent. For the Big Bang to work, ω *had* to be 1, and dark matter *had* to exist. So, like the White Queen in *Through the Looking Glass* who convinced herself of several impossible things before breakfast, cosmologists decided that 99 percent of the universe was hypothetical, unobservable particles.”¹⁵⁰

Likewise, Halton Arp was at one time an associate of Edwin Hubble, but as of this date he is the black sheep of the astrophysical community because, like Hubble and Humason, he dared to suggest an alternative to the expanding universe concept. Arp was systematically marginalized after his extensive work on the redshifts of quasars and galaxies indicated the universe was *not* expanding. As astrophysicist Jayant Narlikar writes:

The ludicrous climax came about ten years ago when Arp was denied the use of telescopes in major observatories. The reason given was that

¹⁵⁰ Eric J. Lerner, *The Big Bang Never Happened*, New York, Random House, 1991, pp. 13, 34-35). See also: Evidence for a Non-Expanding Universe: Surface Brightness Data from HUDF. Lerner states: “The data is clearly compatible with the non-expanding hypothesis and clearly incompatible with the expanding hypothesis, even with evolution. The universe, therefore, is not expanding,” First Crisis in Cosmology Conference, AIP Conference Proceedings, Vol. 822, held in Moncao, Portugal, 23-25 June 2005. Edited by E. J. Lerner and J. B. Almeida., p. 73 of pp. 60-74.

his findings “did not make sense,” and were therefore a “waste of time.” In other words, telescopes are meant only to confirm the established ideas [the Big Bang] and not turn up anomalous data.¹⁵¹

Astrophysicist Paul Marmet concurs:

Science is said to be about searching for truth, but the harsh reality is that those whose views clash with established theories often find themselves ridiculed and denied funds and publications.¹⁵²

Arp writes in his book, *Seeing Red*, concerning his first book, *Quasars, Redshifts and Controversies*:

...the book became a list of topics and objects to be avoided at all cost. Most professional astronomers had no intention of reading about things that were contrary to what they knew to be correct. Their interest usually reached only as far as using the library copy to see if their name was in the index....More than 10 years have passed and, in spite of determined opposition, I believe the observational evidence has become overwhelming, and the Big Bang has in reality been toppled.

The ostracizing of Arp and the ignoring of his evidence shows quite clearly the personal agendas and the ignorance abounding in the halls of science today. Regardless of whether Arp’s interpretation of redshift is correct, it is quite clear that the science establishment is refusing to consider the evidence based upon its biased presuppositions and its desire to preserve the Big Bang. According to Arp, it is easy to figure out why:

[I]f the cause of these redshifts is misunderstood, then distances can be wrong by factors of 10 to 100, and luminosities and masses will be wrong by factors up to 10,000. We would have a totally erroneous picture of extragalactic space, and be faced with one of the most embarrassing boondoggles in our intellectual history.¹⁵³

Throughout his book Arp uses detailed observational evidence to show why the Big Bang interpretation of redshift is erroneous. From an analysis of X-ray sources, Seyfert Galaxies, Companion Galaxies, individual stars

¹⁵¹ *Times of India*, July 30, 1994.

¹⁵² www.newton.physics.on.ca.

¹⁵³ *Seeing Red: Redshifts, Cosmology and Academic Science* p. 1

in the same galaxy, clusters of galaxies, and a critique of the so-called “gravitational lensing” effect, Arp makes quite a convincing case. His alternate view postulates that:

On the theoretical front it has become more persuasive that particle masses determine intrinsic redshifts and that these change with cosmic age. Therefore episodic creation of matter will imprint redshift steps on objects created at different epochs. In addition it appears increasingly useful to view particle masses to be communicated by wave-like carriers in a Machian universe.¹⁵⁴

Perhaps Fred Hoyle says it best:

“The whole history of science shows that each generation finds the universe to be stranger than the preceding generation ever conceived it to be.”¹⁵⁵

Other scientists have the same sentiment:

Despite the widespread acceptance of the big bang theory as a working model for interpreting new findings, not a single important prediction of the theory has yet been confirmed, and substantial evidence has accumulated against it.... And no element abundance prediction of the Big Bang was successful without some ad hoc parameterization to ‘adjust’ predictions that otherwise would have been judged as failures.¹⁵⁶

Observations only recently made possible by improvements in astronomical instrumentation have put theoretical model of the Universe [the Big Bang] under intense pressure. The standard ideas of the 1980s about the shape and history of the Universe have now been abandoned—and cosmologists are not taking seriously the possibility that the Universe is pervaded by some sort of vacuum energy, whose origin is not at all understood.¹⁵⁷

¹⁵⁴ *Seeing Red: Redshifts, Cosmology and Academic Science*, p. 195.

¹⁵⁵ *Astronomy and Cosmology*, 1975, p. 48.

¹⁵⁶ Tom van Flandern, “Did the Universe Have a Beginning?” *Meta Research Bulletin*, Vol. 3, No. 3, 15 September 1994, p. 33.

¹⁵⁷ Peter Coles, “The End of the Old Model Universe,” *Nature*, Vol. 393, 25 June 1998, p. 741.

Astronomy, rather than cosmology, is in trouble. It is, for the most part, beside itself. It has departed from the scientific method and its principles, and drifted into the bizarre; it has raised imaginative invention to an art form; and has shown a ready willingness to surrender or ignore fundamental laws, such as the second law of thermodynamics and the maximum speed of light, all for the apparent rationale of saving the status quo. Perhaps no 'science' is receiving more self-criticism, chest-beating, and self-doubt; none other seems so lost and misdirected; trapped in debilitating dogma.¹⁵⁸

History also shows that some Big Bang cosmologists' "predictions" of the microwave background radiation temperatures have been 'adjusted' after-the-fact to agree with observed temperatures.¹⁵⁹

The study of historical data shows that, over the years, predictions of the ratio of helium to hydrogen in a Big Bang universe have been repeatedly adjusted to agree with the latest available estimates of that ratio as observed in the real universe. The estimated ratio is dependent on a ratio of baryon to photons (the baryon number) that has also been arbitrarily adjusted to agree with the currently established helium to hydrogen ratio. These appear to have not been predictions, but merely adjustments of theory ('retrodictions') to accommodate current data.¹⁶⁰

In each of the five patches of sky surveyed by the team, the distant galaxies bunch together instead of being distributed randomly in space. "The work is ongoing, but what we're able to say now is that galaxies we are seeing at great distances are as strongly clustered in the early universe as they are today," says Steidel, who is at the California Institute of Technology in Pasadena."¹⁶¹

¹⁵⁸ Roy C. Martin, Jr., *Astronomy on Trial: A Devastating and Complete Repudiation of the Big Bang Fiasco*, New York: University Press of America, 1999.

¹⁵⁹ William C. Mitchell, "Big Bang Theory Under Fire," *Physics Essays*, Vol. 10, No. 2, June 1997, pp. 370-379.

¹⁶⁰ *Ibid.*, p. 7.

¹⁶¹ Ron Cowen, "Light from the Early Universe," *Science News*, Vol. 153, 7 February 1998, p. 92. See also, Geoffrey R. Burbidge, "Was There Really a Big Bang?" *Nature*, Vol. 233, 3 Sept. 1971, pp. 36-40; See also: Ben Patrusky, "Why is the Cosmos 'Lumpy'?" *Science* 81, June 1981, p. 96; Stephen A. Gregory and Laird A. Thompson, "Supercluster and Voids in the Distribution of Galaxies," *Scientific American*, Vol. 246, March 1982, pp. 106-114.

There shouldn't be galaxies out there at all, and even if there are galaxies, they shouldn't be grouped together the way they are.¹⁶²

If this dissenting view is correct and the Universe doesn't become smoothed out on the very largest scales, the consequences for cosmology are profound. "We're lost," says Coles. "The foundations of the Big Bang models would crumble away. We'd be left with no explanation for the Big Bang or galaxy formation, or the distribution of galaxies in the Universe."¹⁶³

It is commonly supposed that the so-called primordial abundances of D , ^3He , and ^4He and ^7Li provide strong evidence for Big Bang cosmology. But a particular value for the baryon-to-photon ratio needs to be assumed ad hoc to obtain the required abundances.¹⁶⁴

Examining the faint light from an elderly Milky Way star, astronomers have detected a far greater abundance of beryllium atoms than the standard Big Bang model predicts.¹⁶⁵

I have little hesitation in saying that a sickly pall now hangs over the Big-Bang theory. When a pattern of facts becomes set against a theory, experience shows that the theory rarely recovers.¹⁶⁶

Even the most enthusiastic cosmologist will admit that current theories of the nature of the universe have some big holes. One such gap is that the universe seems to be younger than some of the objects contained within it....Another problem is that the observed universe just doesn't

¹⁶² James Trefil, *The Dark Side of the Universe*, New York: Charles Scribner's Sons, 1988, p. 3.

¹⁶³ Marcus Chown, "Fractured Universe," *New Scientist*, Vol. 163, 21 August 1999, p. 23. See also, Margaret J. Geller and John P. Huchra, "Mapping the Universe," *Science*, Vol. 246, 17 November 1989, pp. 897-903; M. Mitchell Waldrop, "Astronomers Go Up Against the Great Wall," *Science*, Vol. 246, 17 Nov. 1989, p. 885; John Travis, "Cosmic Structures Fill Southern Sky," *Science*, Vol. 263, 25 March 1994, p. 1684; Will Saunders, et al., "The Density Field of the Local Universe," *Nature*, Vol. 349, 3 January 1991, pp. 32-38.

¹⁶⁴ Halton Arp, et al., "The Extragalactic Universe: An Alternative View," *Nature*, Vol. 346, 30 August 1990, p. 811.

¹⁶⁵ Ron Cowen, "Starlight Casts Doubt on Big Bang Details," *Science News*, Vol. 140, 7 Sept. 1991, p. 151.

¹⁶⁶ Fred Hoyle, "The Big Bang Under Attack," *Science Digest*, May 1984, p. 84.

appear to have enough matter in it to explain the way it behaves now, nor the way theorists predict it will evolve.¹⁶⁷

Fr. Robinson: Empirical evidence also indicates that it is absolutely impossible, given the laws of nature and the properties of matter and living things as we know them, that life could ever come from non-life, or that new natural species of life could evolve from less complex natural species.

R. Sungenis: Agreed, but Fr. Robinson still has a problem, namely, the long-ages he advocates have no essential purpose. If God, by divine fiat, creates man, what stops us from saying God, by divine fiat, created the Earth first; then created a primordial light; then created the firmament of space; then the plants; then the sun, moon and stars? Nothing whatsoever. But like Stanley Jaki—another priest who threw out portions of the Bible he didn't like—Fr. Robinson doesn't like the fact that Genesis reverses the order of creation dictated by the Big Bang. Fr. Robinson wants the galaxies to come first instead of the Earth. Why? Because Fr. Robinson knows that an Earth created first smacks of geocentrism, and Fr. Robinson has already decided that geocentrism is a “conspiracy theory.” The truth is, the only “conspiracy theory” is the one Fr. Robinson put in his book about long-ages and the Big Bang. His “Robinson meter” is actually going around in circles and about to burn itself out, but Fr. Robinson thinks it is holding right in the middle of two extremes.

Question: Can you provide the theory that has been invented to deal with the fact that you have implicitly censured all Church Fathers as possessing a “Protestant notion of God” and using “Protestant principles” of exegesis?

Fr. Robinson: Answer: On the contrary, I have not censured the Fathers in any way, but rather have supported them. Let me explain. There are two levels of agreement with another. One is

¹⁶⁷ Robert Matthews, “Spoiling a Universal ‘Fudge Factor,’” *Science*, Vol. 265, 5 August 1994, pp. 740-741.

agreeing with them at the level of principles; the other is agreeing with them on how the principles are applied in this or that situation. You would probably agree that holding the same principles as someone else is more fundamental than agreeing in all of their concrete applications. That is, after all, the main way that we, as Catholics, can claim to be holding the same faith as those Fathers whom we respect so much.

R. Sungenis: Here Fr. Robinson makes up his own rules by inventing a distinction between “principles” and “application.” In this framework, the Fathers can collectively believe in the same principles of knowledge but arrive at different conclusions regarding doctrine. The distinction that Fr. Robinson should have made is that, as far as Church doctrine is concerned, there is a big difference between the *consensus* of the Fathers as opposed to what any *individual* Father may conclude from Scripture and Tradition. In regards to a consensus, the Church holds that the very principles guided and passed down by the Holy Spirit through the Apostles is also the very application that was guided and passed down by the Holy Spirit through the Apostles. Otherwise, the Council of Trent could have never taught that a consensus of the Fathers on a particular doctrine requires our belief in that doctrine. This is why the Church herself, when she decided on the canon of Scripture as early as the Council of Rome in 380 AD, could confirm to the Catholic populace—then and 1183 years later at the Council of Trent—that the canon of Scripture was infallible. It was because the Holy Spirit was guiding the Church in His effective but mysterious way, otherwise, we would have no infallible canon, and little truth beyond our own guesses.

Keep in mind, this divine guidance would also apply to every other doctrine the Fathers passed down to us in consensus, including Fr. Robinson’s favorite boogeyman – geocentrism. Yes, the Fathers were in 100% consensus that geocentrism is taught by the Bible. That is why Cardinal Robert Bellarmine told Galileo that we could not reject geocentrism due to the consensus of the Fathers. That is why two popes within sixteen years of each other, confirmed what the Holy Office recommended, that is, to call heliocentrism (and by association, Fr. Robinson’s Big Bang universe) a “formal heresy.” And we already saw how Fr. Robinson deals with that issue. He simply calls the consensus of

the Fathers and the decisions of the magisterium a “mistake.” No wonder Fr. Robinson has trouble relying on the Holy Spirit’s guidance. He seems to think the Holy Spirit went on vacation at certain points in the Catholic history.

But Fr. Robinson *must* have this distinction because without it he won’t be able to separate himself from the Fathers when it comes to creation, since *none* of the Fathers, including St. Augustine, taught long-ages. All the Fathers believed in creation by divine fiat on each of the days of Creation (or in one day, as Augustine offered in a second interpretation). At no time did they consider the days of creation as mere story-filler, as Fr. Robinson does. And at no time did any of the Fathers dismiss the meticulous genealogies of Genesis 5 & 11, as Fr. Robinson does.

But instead of admitting that he has basically rejected the Catholic patristic testimony on Creation, Fr. Robinson invents his own categories of truth (*e.g.*, principle *vs.* application) and then camouflages his dismissal of the patristic testimony by referring to the short-age view as nothing more than a “Protestant” invention. In this way, he can make it appear he is not distancing himself from the Fathers and can blame any interpretation that opposes his long-age view as being from Protestant heretics. That was quite a piece of manipulation if I ever saw one, but there had to be some scapegoat if Fr. Robinson hoped to see his book gain any credibility in academic circles. The Protestants will do just fine in this regard.

Fr. Robinson: To apply this distinction to the case at hand, I hold to the very same principles of exegesis that the Fathers held, the very same attitude in the interpretation of Scripture, which is the attitude of the Catholic Church. This attitude, which is detailed in my book (see p. 250), has us hold to the literal sense of Scripture unless that sense is ruled out by other information.

R. Sungenis: Then why did the Fathers come away with a totally different “application” of the exegeted texts concerning Creation than Fr. Robinson does? It’s because Fr. Robinson has a new god he wants to worship, and it is called the Big Bang. Since Fr. Robinson holds no critical view of the theory, then it becomes virtually infallible for him. So he rejects the infallibility provided by the Holy Spirit to the Church for its creation

doctrine and accepts the “infallibility” of modern science to make the final decision. Unfortunately, since Fr. Robinson doesn’t have the critical skills necessary to see the fallacies in both radiometry and the Big Bang, he will go on convincing people into thinking he has the right to change the “application” of the Fathers while still holding to their “principles.”

While we’re here, I should also mention that Fr. Robinson makes hefty use of the canard about Genesis 1:6-9 teaching that the firmament is a dome over a flat earth. He writes:

If Scripture, according to its literal sense, says that there is a roof above the Earth, and meanwhile our senses tell us that there is no such roof, then our conclusion is clear: ‘If a literal interpretation is really and flatly contradicted by an obvious fact, why then we can only say that the literal interpretation must be a false interpretation.’ Once we have flown to space—and have not crashed through a roof on the way—we are to reject the strictly literal reading for a more allegorical one.¹⁶⁸

R. Sungenis: Yes, I think any sane person would agree that if we didn’t crash into the dome on the way up to space then it would be safe to conclude there isn’t a dome. But in speaking of “application,” the means that Fr. Robinson uses to apply this information is to impugn the veracity of Genesis 1:6-9 by assuming that it is teaching there is a dome above the Earth. It is teaching no such thing. This is merely another canard from the Jaki-Lemaître cult of biblical analysis, but they are not totally to blame. Prior liberal expositors have pushed this idea down our proverbial gullet for almost 200 years. They claim that the ancient Mesopotamian cultures wrote about a flat Earth with a dome over it, and that the Hebrew people of the 6th century BC merely copied this model while they were coming out of Babylonian captivity and put it into Genesis 1. Hence, the “firmament” of Genesis 1 becomes a “dome” over a flat Earth. And, after imposing a dome into Genesis 1, all the liberal scholars jeer at the Bible for the foolish things it says about a dome and conclude that we need not pay attention to any of its details because there is obviously no dome over a flat Earth. This is the insidious “worldview” of Fr. Paul Robinson, the one he used to interpret the inspired and inerrant words of Genesis that apparently Fr. Robinson doesn’t really believe are inspired and inerrant.

¹⁶⁸ *The Realist Guide to Religion and Science*, pp. 250-251.

There are two very important things we need to know about the Genesis firmament. The first is that it is not a dome. The Hebrew word here is רָקִיעַ (*raqiya*). It can refer to something hard. It is here that most exegetes, especially liberal Catholics, have misconstrued “hard” for a “dome.” But if the firmament is only hard, then how do the sun, moon and stars move in it, as Genesis 1:14-19 says they do? And how do the birds fly “on the face of the firmament” if the firmament is hard? In order to deal with this anomaly, some posit that the celestial bodies and birds fly “under” or “inside” the dome. But that is not what the Hebrew says. It says they move “in the firmament,” not under it.¹⁶⁹

¹⁶⁹ The Hebrew language, although it didn’t have the most comprehensive vocabulary, did, indeed, have different words for “in,” “inside,” and “under.” The word “in” is denoted by putting the letter bet (ב) before the noun. We find this formation, for example, in the first phrase of Genesis 1:1, “In the beginning...” (בְּרֵאשִׁית), or the phrase “in the firmament” (בְּרָקִיעַ) in which ב begins the word (reading right to left in Hebrew). But when Hebrew wants to say “inside,” it does not use a ב before the noun; rather, it uses a different letter, the letter mem (מ). For example, in Gn 6:14 it says, “and cover it inside and out with pitch,” from the word mabit (מַבִּיתָה). The same occurs in Lv 14:41: “and he shall cause the inside (מַבִּיתָה) of the house to be scraped round about,” or 1Kg 6:15: “He lined the walls of the house on the inside (מַבִּיתָה) with boards of cedar,” or 2Ch 3:4: “He overlaid it on the inside (מִפְּנִימָה) with pure gold.” The purpose of using the Hebrew prefix mem (מ) for “inside” (as opposed to ב for “in”) is that whatever item is put on the “inside” is separate from the overarching structure that lies next to it. On the ark, the pitch was put on the surface of the wood, but the pitch was not put in the wood itself. Likewise, cedar was put on the walls of the temple, but cedar was not mixed with the wall; and the temple was not made of gold; rather, gold was put on the temple walls, on the inside of the wall, not in the wall itself. This grammatical issue becomes quite relevant for our discussion since in Genesis 1 there is no appearance of the Hebrew word “inside” when it speaks of the firmament. While the Hebrew prefix for “inside” (מ) is never used, the prefix for “in” (ב) is always used. For example, Gn 1:14,15, 17 says, “in the firmament (בְּרָקִיעַ: pronounced: bir-ee-kee-yah) of the heavens.” If the text said, “Let there be lights inside the firmament of the heavens,” with the intent of saying that the lights were underneath the firmament, the phrase would be מִבְּרָקִיעַ (pronounced: mir-ee-kee-yah). The only exception to the use of “in the firmament (בְּרָקִיעַ) of the heavens” appears in Gn 1:20 regarding the realm of the birds. Here the translation is: “let birds fly above the earth across the firmament of the heavens” (RSV). The phrase “across the firmament” is עַל־פְּנֵי רָקִיעַ, which literally means “on the face of the firmament.” The “face” is the front of the firmament (as our

The missing piece, of course, is that the Bible continually states God “stretched” out the firmament, starting at the beginning of Creation.¹⁷⁰ The stretching out of the firmament to the ends of the heavens (*i.e.*, universe) made the firmament a spacious and flexible substance. This is why many translations render it “expanse” or “space.” In the end, the firmament becomes space, both inner and outer, wherein the birds fly in inner space and the celestial bodies move in outer space. It’s really very simple.

Second, the “dome” concept originates from the liberal scholars who interpreted the Mesopotamian literature in their usual biased way. Essentially, they avoided all the ancient literature that said the Earth was sphere-like and exaggerated all the passages that implied the Earth was flat. They then imposed the latter concept onto the Bible and claimed the biblical authors copied these ancient Mesopotamian texts. Their purpose in doing so was to make the Bible look incompetent, even as they knew the flat Earth concept they imposed upon Mesopotamian culture was lacking evidence. Unfortunately, the flat Earth view of Genesis is taught in all the major Catholic seminaries and universities, and it is what Paul Robinson was apparently taught when he attended the SSPX seminary. They are all following the Jaki-Lemaître cult of biblical exegesis. In fact, Fr. Robinson refers to Stanley Jaki several times in his book, and the Foreword is written by Rev. Dr. Paul Michael Haffner, who is titled, “President, Stanley Jaki Foundation.”¹⁷¹

face is the front of our head), which means that the portion of the firmament in which the birds cannot fly is the “back” of the firmament, that is, outer space. The “face” of the firmament is that portion which, for lack of a better term, “faces” the Earth, or is closest to the Earth, which is just above the Earth’s surface. Hence the birds fly in the front part of the firmament as opposed to the back of the firmament where the moon, sun and stars move. As for “under,” the Hebrew had several words: מַטְּהָ (mattah): Ex 28:27; תַּחְתֹּת (techot): Jr 10:11; תַּחַת (tachat): Gn 1:7; אֶל־תַּחַת (el tachat): Jr 3:6; לְמִיַּתַּחַת (lemittachat): 1Kg 7:32. Of these, the relevant one is Gn 1:7, which is translated in context as: “And God made the firmament, and he separated between the waters which were under the firmament and the waters which were above the firmament.” Here “under” refers to something separate from the firmament, not something “in” the firmament. Genesis 1:7 is the only time “under” appears in the text.

¹⁷⁰ Cf. Jb 9:8; Ps 104:8; Is 42:5; 44:24; 45:12; 51:13; Zc 12:1.

¹⁷¹ *Ibid.*, p. xvii.

A recent book shows quite clearly the fallacy of the “dome” concept. Wayne Horowitz, in his published book from his Ph.D. dissertation, *Mesopotamian Cosmic Geography*, reveals that not only were the Mesopotamian accounts quite diverse, the idea of a dome over the Earth “has no direct evidence.” He writes:

...despite the continuity of tradition between the earliest and latest documents, one does find disagreement between texts from different periods, of different genres, and even among texts from the same period and genre.

...the available evidence leaves a number of problems completely unsolved. For example, no surviving text presents clear evidence for the bounds of the physical universe or explains what might be found beyond the limits of the universe. Such problems are endemic to this study, since no single surviving ancient Mesopotamian source or set of sources presents a comprehensive view of the physical universe.¹⁷²

Again Horowitz reveals that the evidence is only indirect and that no direct evidence exists:

The image of the starry sky as a cattle-pen may provide indirect evidence that the sky was perceived as a dome. The original pictograph of the TIJR (cattle-pen) sign includes a dome-shaped element (see Labat 87a), suggesting that some cattle-pens had dome-shaped roofs that might have been compared with the apparent dome of the sky.¹⁷³

Although the clear sky seems to us to be shaped like a dome, rather than flat circle, there is no direct evidence that ancient Mesopotamians thought the visible heavens to be a dome. Akkadian kippatu are always flat, circular objects such as geometric circles or hoops, rather than three dimensional domes.¹⁷⁴

Horowitz adds that contrary evidence is only implied, and certainly not proven:

Nonetheless, evidence for dome-shaped, or curved, heavens may be found in the ziqpu-star text BM 38693+, the blessing formula STT

¹⁷² *Mesopotamian Cosmic Geography*, Eisenbrauns, 1998, xiii.

¹⁷³ *Mesopotamian Cosmic Geography*, pp. 255-256.

¹⁷⁴ *Ibid.*, p. 264.

340:12, and AO 6478, where the Path of Enlil is 364° long. All three imply that the Path of Enlil, at least, is a curved band that encircles the earth's surface...However this does not prove that the surface of heaven is curved, since stars need not have necessarily traveled along the surface of the sky. There is also no direct evidence for the shape of the high unseen heavens, although it is likely that these levels too were thought to be circles.¹⁷⁵

As for the earlier Sumerians, Horowitz says the Earth seems to be cast into a block instead of a flat plane with a hemisphere:

In Sumerian mythology, the earth is a solid block of matter that is separated from heaven in early times. Heaven and earth are made distant from one another, thereby exposing the dry land on the upper surface of the earth, where mankind is later settled. The underworld below the earth's surface also apparently belongs to this solid block of matter.¹⁷⁶

As Horowitz gives us a completely different view than what has been concluded by previous liberal scholars, there is another matter in which modern scholars have presumed facts that are not in evidence. It concerns the dating of Mesopotamian literature as compared with the oral and written tradition of the Hebrew culture. In short, modern scholars have based their conclusions on the idea that the Mesopotamian culture and its writings pre-date the Hebrews and their writings. The simple fact is, there exists no proof for such an argument. For example, the oldest extant copies of the Babylonian *Enumu Elish* story come from the 11th century BC, four hundred years after Moses who is traditionally understood to have written Genesis.¹⁷⁷ As one encyclopedia notes:

W. G. Lambert, for instance, has shown evidence that Marduk was still a relatively minor god in the Babylonian pantheon until about the 13th century b.c. and that he rose to officially sanctioned preeminence only

¹⁷⁵ *Ibid.*, pp. 264-265

¹⁷⁶ *Ibid.*, p. 318.

¹⁷⁷ Dt 31:24-26: "When Moses had finished writing the words of this law in a book, to the very end, Moses commanded the Levites who carried the ark of the covenant of the Lord, 'Take this book of the law, and put it by the side of the ark of the covenant of the Lord your God...'" (*cf.* Ex 17:34; 34:27; Nm 33:1-2; Dt 31:9; Rm 10:5; 2Co 3:15; Jn 5:45-47).

in the late 12th century under Nebuchadnezzar I, on the occasion of a great religious revival in Babylonia. T. Jacobsen, adducing parallels between the Ugaritic epics and *Enuma Elish* and noting that the sea-storm motif would be much more at home in Syria, has contended that the Babylonian epic—or at least prominent elements of its theomachy—derived from the West Semitic world; he also views *Enuma Elish* as essentially a cosmogony (with Enlil originally as hero) and only secondarily (after the insertion of Marduk) revised into an apologia for Marduk.¹⁷⁸

The likelihood, then, is the Hebrew tradition influenced the surrounding pagan cultures rather than vice-versa. But modern scholars, bent as they are on dismissing Hebrew accounts as uninspired man-made recapitulations, refuse to admit this possibility. As noted by John McCarthy:

The copies of *Enuma Elish* that are extant today do not antedate the year 1000 BC, which is long after the time of Moses. The exploits of the false god Marduk, which figure so prominently in Vawter's comparison with Genesis 1, were added to the poem in a later phase that seems to date from the twelfth century BC, which was well after the time of Moses. What Herbst calls "a background of common Semitic folklore" could just as well have been an original revelation by the one true God that came down to Moses intact, but which was corrupted by pagan poets into their respective myths. Modern Scripture scholars are reluctant to admit the influence of Hebrew tradition upon the surrounding pagan cultures, judging almost always that the influence was in the opposite direction, but in doing this they are simply manifesting a common prejudice that comes to light in the framework of a valid scientific theology. A revelation regarding the origin of the universe, given by God to the Hebrews, or preserved intact by them, would tend to provide the point of departure for pagan myths about the origin of the world, since human fantasy is quite limited in its own originality. If we succeed in rising above every unscientific and unhistorical prejudice against possible revelations by God to men, we

¹⁷⁸ <https://www.encyclopedia.com/religion/encyclopedias-almanacs-transcripts-and-maps/enuma-elish>

shall be in a better position to make an objective analysis of the inspired word of Genesis.¹⁷⁹

The same kinds of presumptions from liberal scholars are made from the famed Gilgamesh Epic. It is claimed the Bible obtained its Flood account from either the Gilgamesh Epic or some older Sumerian text. For example, rabbinic scholar Robert Wexler states:

The most likely assumption we can make is that both Genesis and Gilgamesh drew their material from a common tradition about the flood that existed in Mesopotamia. These stories then diverged in the retelling.¹⁸⁰

The operative word here is “assumption,” since as O’Brien puts it: “A popular theory, proposed by liberal scholars, said that the Hebrews borrowed from the Babylonians, but no conclusive proof has ever been offered.”¹⁸¹ Since the genealogies of Genesis show the Flood occurred in the early third millennium,¹⁸² Noah is either before or contemporaneous with the earliest extant proof, provided by written documents of civilization, even those of Sumerian origin. As Wikipedia says regarding the earliest written documents:

It is generally agreed that true writing of language (not only numbers) was independently conceived and developed in at least two ancient civilizations and possibly more. The two places where it is most certain that the concept of writing was both conceived and developed independently are in ancient Sumer (in Mesopotamian), around 3100 BC, and in Mesoamerica by 300 BC, because no precursors have been found to either of these in their respective regions.¹⁸³

Obviously, then, any claims to a Sumerian culture prior to 3,100 BC are pure speculation, a result of the liberal scholars’ need to make the Flood

¹⁷⁹ <http://www.rtforum.org/lt/lt45.html>

¹⁸⁰ <http://www.historyofinformation.com/expanded.php?id=1762>, in the article: “The Epic of Gilgamesh, Probable Source of Aspects of Biblical and Homeric Literature (Circa 1,300 BCE – 1,000 BCE).”

¹⁸¹ J. R. O’Brien, “Flood Stories of the Ancient Near East,” p. 64.

¹⁸² E.g., Masoretic text: 2529 BC; LXX: 3044 BC; Samaritan Pentateuch: 2954 BC. See my book, *The Book of Genesis, Chapters 1-11*, 2009, pp. 388-401.

¹⁸³ https://en.wikipedia.org/wiki/History_of_writing

post-date Sumerian culture so they can upstage the Bible and its pre-Flood tradition. In any case, the Gilgamesh Epic, since it is a written document, must postdate 3100 BC. Since Noah lived in the early third millennium, he predates the Gilgamesh Epic, and so does the tradition of the Flood that was passed down by his progeny listed in Genesis 10-11.

In the end, historical-critical scholarship cannot claim that Sumerian culture predated Noah; and thus they cannot claim the Sumerians were the ones who passed down a tradition of a Flood prior to 3100 BC. Not only is their attempt pure speculation (which is why the critical literature trying to find an exact date for the Sumerian culture is quite diverse), more importantly, in basing their claim on the idea the Sumerians passed down an unwritten tradition about a Flood, they leave the door wide open for Noah and his progeny to do the same, and are thus hoist by their own petard.

Fr. Robinson: This attitude was especially exemplified by Sts. Augustine and Thomas Aquinas. The latter states the following (I, q.68, a.1):

Two things must be observed in questions of this sort, as Augustine teaches. First, one must hold unshakably that Scripture is true. Second, since Sacred Scripture can be interpreted in many ways, one must not hold to a given interpretation so firmly that, once that interpretation is clearly shown to be false, he presumes to assert that the false interpretation is Scripture's meaning, lest, by doing so, he exposes Scripture to ridicule by non-believers, and close off for them the path to belief.

R. Sungenis: Who could argue against this? But this has little to do with Fr. Robinson's problem, and the burden is completely on him. Augustine and Aquinas were referring to "proof" found elsewhere that might impinge on the Bible, not wishful thinking or "it might be right" science. Does Fr. Robinson claim proof of the Big Bang and long ages? I hope not, since science can't prove hardly anything, especially the nature of the cosmos. Fr. Robinson, if I am reading him correctly, claims he has "evidence" for a Big Bang and long-ages, but "evidence" is not good enough to change our historic interpretation of the Bible (and that conclusion assumes the

evidence Fr. Robinson has is credible, which it is not). By the same token, there is a lot of “evidence” against the Big Bang. Why doesn’t Fr. Robinson consider that? The literature is full of it. At the least he could have enlightened his reader to the existence of the credible evidence from well-qualified scientists, especially since the critiques of the Big Bang come from totally secular sources, not religious ones. But there is a complete dearth of such critical evidence in Fr. Robinson’s book, yet his book contains no less than 20 references to 20 different articles and books written by Fr. Stanley Jaki, the popular Catholic theologian who denied the accuracy and inerrancy of the Genesis account of Creation.

Galileo also claimed he had “evidence.” In fact, at times he declared he had “proof” the Earth goes around the sun. But what he thought was evidence or proof turned out to be only his imagination and not hard science (*e.g.*, his idea that a rotating Earth caused the tides; his idea that Ptolemy’s failure to show the phases of Venus meant the Earth was revolving around the sun; his supposition that if moons go around Jupiter than the Earth must go around the sun). But, of course, the Church saw none of this as “evidence,” much less proof, and thus condemned Galileo and heliocentrism as a “formal heresy” in both 1616 and 1633. The Church stuck to its tradition and the testimony of Scripture and let the chips fall where they may. Little did they know that one of the world’s greatest scientists, Albert Einstein, would finally admit to the scientific viability of the geocentric universe in 1915 in his General Relativity Theory when, quite ironically, he had tried for ten years prior to deny geocentrism with his 1905 Special Relativity Theory. Of course, a modernist like Fr. Robinson, following the Jaki-Lemaître cult, either isn’t aware of Einstein’s admission or he deliberately hides it from their readers.

As we stated earlier, Fr. Robinson’s “worldview” of the Big Bang is all theory, and theory that was based on a dubious and biased origin—Hubble’s finding the Earth was in the center of the universe and his wish to rid science of this fact by making a balloon universe that expanded from a Big Bang. So, yes, we stand with Augustine and Aquinas, especially since both were geocentrists in opposition to the Pythagorean school of heliocentrists. Until Fr. Robinson can find positive and undeniable proof

that geocentrism is false and that there was a Big Bang and long-ages, he is to be given no more credibility than the Church gave to Galileo.

Today it is not uncommon for theistic evolutionists, progressive creationists, long-age advocates and Galileo admirers to attempt to advance their cause by appealing to the words of St. Augustine that St. Thomas references above. They use it to chide traditional Catholics that depend on the Bible to give accurate truth about the origins of the universe and its development. But as we will see, here is the place where, after looking intently in the mirror, they fail to remember their own image, for if they really understood what Augustine was saying they would realize that he is pointing his finger at no one but them. In his book, *The Literal Meaning of Genesis*, he writes:

Usually, even a non-Christian knows something about the earth, the heavens, and the other elements of this world...Now, it is a disgraceful and dangerous thing for an infidel to hear a Christian, presumably giving the meaning of Holy Scripture, talking nonsense on these topics; and we should take all means to prevent such an embarrassing situation, in which people show up vast ignorance in a Christian and laugh it to scorn. Reckless and incompetent expounders of Holy Scripture bring untold trouble and sorrow on their wiser brethren when they are caught in one of their mischievous false opinions and are taken to task by those who are not bound by the authority of our sacred books.¹⁸⁴

Seizing on Augustine's words, the liberal chides the literalist, accusing him of "presuming a meaning on Scripture" that in scientific terms is "nonsense," which causes an "embarrassing situation" and a "laughing to scorn" of the "wiser brethren" of Christianity. Jaki uses Augustine's quote several times in his favor in an attempt to obliterate "concordism" from the exegetical landscape.¹⁸⁵ What we find in Jaki's book is essentially a search through history to find anyone who agrees with Jaki's non-literal interpretation of Genesis 1. If the author is a "concordist," Jaki summarily dismisses him, which he is forced to do about 95% of the time.

¹⁸⁴ *The Literal Meaning of Genesis*, Bk 1, Ch. 19, No. 39.

¹⁸⁵ *Genesis 1 through the ages*, pp. 90-91; 141; 174.

A concordist is an exegete who attempts to apply science, to whatever degree, to Genesis 1. Jaki's favorite litmus tests are:

- what does the author do with the Light on the first day in contrast to the sun's light on the fourth day;
- what does the author do with the Firmament made on the second day, as well as the waters above it;
- what does the author do with the Hebrew word *bara* in Genesis 1:1, a word Jaki believes cannot mean "created" but "to split" or "to slash."¹⁸⁶

To his dismay, Jaki finds no one who even mentions, much less sides with, his own view of Genesis 1,¹⁸⁷ which, being a repetitive droning in his book, is the proposition that the only thing with which the Genesis 1 writer is interested in demonstrating the creative power of God by means of stating the "whole" ("In a certain beginning God created the heavens and the earth") and then stating some of its "parts" ("some" being the things that Jaki agrees with).¹⁸⁸ To Jaki, Genesis 1 was written to the "reader at that time"¹⁸⁹ and only inadvertently for others, and therefore it could not even broach the complicated area of cosmogony, much less explain it. To top it off, Jaki resigns Genesis 1 to being "post-exilic" literature designed to reinvigorate the Jews coming out of seventy years of Babylonian captivity; not to serve as an historical model of origins, even on an elementary level.

Conversely, the literalist can show quite easily that taking Genesis 1 at face value will not in the least cause an "embarrassing situation," and he can prove it by bringing Augustine to his aid. He will show the non-literalist (Jaki, Robinson, *et al*) they are misconstruing Augustine's words, and in reality, the words are an indictment against the non-literalist. For Augustine goes on to explain to whom he is applying his words a few pages later. In Book 2, Chapters 4-5, the question of the "waters above the firmament" (Gn 1:6-9) comes to the fore. These distant waters have been

¹⁸⁶ *Ibid.*, pp. 79, 94, 97, 116, 119, 130 as for further evidence of Jaki's litmus tests.

¹⁸⁷ *Ibid.*, pp. 63-64.

¹⁸⁸ *Ibid.*, pp. 21, 61, 72, 95, 132, 156 to see the repeated emphasis of Jaki's theme.

¹⁸⁹ *Ibid.*, p. 61.

one of the more divisive issues between literalists and non-literalists, since the firmament is, according to Genesis 1:14-17, the heavens in which the sun and stars were placed, yet Genesis 1:7 insists that there are waters above the firmament, that is, above the heavens. The logical question is: if “waters above” is to be taken literally, then how is this possible, for it seems to contradict the beliefs of modern science. In answer, Augustine begins by referring to vaporous waters in the air as a possible solution. He writes:

Taking these theories into account, a certain commentator [Basil] has made a praiseworthy attempt to demonstrate that the waters are above the heavens, so as to support the word of Scripture with the visible and tangible phenomena of nature.... Hence, from the existence of the air between the vapors that form the clouds above and the seas that stretch out below, our commentator proposed to show that there is a heaven between water and water. This painstaking enquiry is, in my opinion, quite praiseworthy.

But Augustine goes even further in the next analysis, for he shows there are waters even above the starry heavens. He does so by calling into question the prevailing scientific theories of his day, but in the end, he relies on the veracity of Scripture. He writes:

Certain writers, even among those of our faith, attempt to refute those who say that the relative weights of the elements make it impossible for water to exist above the starry heaven. They base their arguments on the properties and motions of the stars. They say that the star called Saturn is the coldest star, and that it takes thirty years to complete its orbit in the heavens because it is higher up and therefore travels over a wider course.

Obviously, Augustine is challenging the prevailing scientific opinion current in his day regarding the nature of stars. Augustine will go on to argue that Saturn, which was then understood as a star, generates heat as it makes its orbit, but that it is cooled by the waters near it, above the heavens, even though some in Augustine’s day denied that these waters existed. He writes:

It is true, indeed, that by its own motion, moving over a vast space, it takes thirty years to complete its orbit; yet by the motion of the heavens

it is rotated rapidly in the opposite direction...and therefore, it ought to generate greater heat by reason of its greater velocity. The conclusion is, then, that it is cooled by the waters that are near it above the heavens, although the existence of these waters is denied by those who propose the explanation of the motion of the heavens and the stars that I have briefly outlined.

Finally, although admitting he may not have the precise solution to the issue, nevertheless, Augustine maintains that Scripture is the greater authority in this realm, and if it says there is water above the heavens, then it is there:

With this reasoning some of our scholars attack the position of those who refuse to believe that there are waters above the heavens while maintaining that the star whose path is in the height of the heavens is cold. Thus they would compel the disbeliever to admit that water is there not in a vaporous state but in the form of ice. But whatever the nature of that water and whatever the manner of its being there, we must not doubt that it does exist in that place. The authority of Scripture in this matter is greater than all human ingenuity.¹⁹⁰

In contrast to Augustine's determination to take Scripture at its word and afterward seek for evidence, Jaki sees Augustine's resolve as misguided. After recognizing that "Augustine looked for it in a vaporous layer in the orb of Saturn," (p. 26), Jaki writes:

Augustine's search for the firmament should seem baffling. It certainly seemed to slight the very sound principle he had already laid down in respect to reconciling truths known by reason about the physical world with corresponding propositions in the Bible.¹⁹¹

Jaki characterizes Augustine's search for the firmament and the water above it as "baffling"; an approach of Augustine's that seems inconsistent with his previous principle of giving the first place to scientific truths and only then finding the corresponding proposition in Scripture which match them. In reality, it is Jaki who has misunderstood Augustine's so-called "very sound principle." It was never Augustine's intention to give absolute

¹⁹⁰ *The Literal Meaning of Genesis*, Bk 2, Ch. 5, No 9.

¹⁹¹ *Bible and Science*, p. 95.

authority to science. All along, although trying to be fair with science, Augustine always held that Scripture's propositions took the first place, and only then could one search for a corresponding scientific truth, not vice-versa. This is obviously the case with Augustine's view of the waters above the firmament, since for him, regardless of whether he had the right scientific answer to its location and composition, he maintained: "*the authority of Scripture in this matter is greater than all human ingenuity.*" This admission from Augustine must have made Fr. Jaki shudder in his boots.

The most penetrating aspect of Augustine's bold defense of Scripture is it is said in a context in which the objector doubts whether water above the firmament exists at all. Augustine's answer is simple: we may not know in what form it resides there, but based on Scripture we know for certain that it exists there. This is where Augustine starts. It is his bedrock of truth. The Scripture said it, and he believes it.¹⁹² Hence we can safely say, for Augustine, the "embarrassing situation" does not occur when a faithful expositor tries to find scientific support for biblical propositions, but occurs when the biblical skeptic tries to elevate scientific theory into fact, requiring Scripture either to conform to the theory or be totally ignorant of the theory.

For all his fear about "concordism," even Jaki admits the language of Genesis 1 is absolutely unique, both in comparison to other biblical passages and to various ancient documents on cosmology. He writes:

The lucidly streamlined character of Genesis 1 should suggest that its author wanted to offer something very different from the cosmological myths of surrounding cultures. Even according to those who want to see in Genesis 1 at least the remnants of some myths composed in mythological times, Genesis 1 appears conspicuously void of mythical elements.... this also explain why Genesis 1 is so different from all the other chapters of the Book called Genesis, indeed from almost all

¹⁹² Aquinas said the same thing regarding the superiority of Scripture to decide such matters: "Whether, then, we understand by the firmament the starry heaven, or the cloudy region of the air, it is true to say that it divides the waters from the waters, according as we take water to denote formless matter, or any kind of transparent body, as fittingly designated under the name of waters..." (*Summa Theologica*, Bk. 1, Ques. 68, Art 3).

chapters of all the Books of the Old Testament. Unlike all those chapters, whatever their great variety, this chapter is not the story of a battle, of an encounter, of a plot. It is certainly not a history. It is not a moral exhortation, a parable, a prophecy, and not even a song as some claimed, and certainly not a ledger for stock-talking as is the case in Numbers throughout. All these literary forms were present in the Hebrew scriptures...¹⁹³

Nevertheless, we must also insist that Jaki's interpretations are not really interpretations at all. They are anti-interpretations, fearful of applying just about anything to Genesis 1, except, as Jaki claims, that they demonstrate a literary technique of "allowing the part to represent the whole."¹⁹⁴ But this is no great revelation. It goes without saying that in many types of discourse the part will invariably represent the whole. In fact, all people who write narratives, whether intentionally or not, incorporate that very principle. Obviously, no one could ever list *all* the parts of something since such a number would be astronomical and impractical.

Yet Jaki is insistent the Hebrews "did not take Genesis 1 for a physics textbook, for the very simple reason that they had no physics."¹⁹⁵ They "had no physics"? None at all? Does it take a mathematical equation such as $F = ma$ or $E = mc^2$ to say that men know physics, especially since both of these equations have come into question recently? Certainly the Hebrews knew that objects dropped from heights fall to the ground; that axe heads do not float on water unless by a miracle; that birds fly by flapping their wings against the air. Mathematical formulas do not make physics, they only give a numerical proportion of one value compared to another. In fact, mathematical formulas can be quite deceiving, since formulas deal only with mental intuition that may or may not represent reality. The irony is that the very concepts of Galilean, Newtonian, and Einsteinian physics, especially the latter's Relativity theory, are just that, numbers that have no way of proving that they describe physical reality. In fact, modern man's ignoring of certain fundamental facts of "physics" established in Scripture has led him to postulate some of the most fantastic

¹⁹³ *Genesis 1 Through the Ages*, pp. 22, 27.

¹⁹⁴ Jaki makes this his constant theme throughout Genesis through the ages (*cf.* pp. 21, 61, 72, 95, 132, 156).

¹⁹⁵ *Ibid.*, p. 25.

and absurd theories to avoid having to submit to Scripture.¹⁹⁶ Someday we may come to realize that the simple notions of the Hebrews are much closer to the truth than the sophisticated theories of modern man. As noted previously, there is one thing about science common to all its branches (including philosophy, psychology, medicine, chemistry, biology, *etc.*), that is, its history shows that it cannot cease from overturning its own theories, whereas the Bible's "science" always remains the same. In actuality, what little verifiable truth is discovered in science, the more the Genesis account is vindicated as being a precise record of what occurred in the past, as we shall see in coming sections of this book.

Fr. Robinson: Now, at the time of the Fathers, it was unclear whether or not the six-day description of Genesis 1 for the development of the universe could be established by science or refuted by science. This is why some Fathers held to the literal sense of that description while others held that the description was to be taken in an allegorical sense. Regardless, the Fathers certainly held different opinions on the application of the principles, but they did not hold different opinions on the principles themselves of interpreting Scripture. By and large, they would have agreed that, if science was able to show that the universe was not created in six, twenty-four days, then that must not be held to be the sense of Scripture.

R. Sungenis: Most of what Fr. Robinson says here is false. The Fathers didn't have a "different" application of the words of Genesis 1 to 11. They all believed in a Creation of six days by divine fiat; they all believed in

¹⁹⁶ Mutliverses; "something out of nothing" an "infinite universe," etc. As the sixth century theologian John Philoponus stated: "...nothing in the makeup of this world is different from the Prophet's treatment of it; in actuality, most of the things whose origins were investigated by scientists have their origin in Moses' book" (cited in Jaki's book, *Genesis 1 through the ages*, p. 99, from *De opificio mundi*, ed G. Reichardt, Leipzig: G. B. Teubner, 1897, p. 6). It is no coincidence that, after his instruction at the Bavarian schools which included teaching on the Catholic religion, especially of the six-day creation, which ended at age twelve, Einstein said that after the "reading of popular scientific books" he "soon reached the conviction that much in the stories of the Bible could not be true" (*Einstein: The Life and Times*, p. ix).

Adam, Eve, and the devil. They all believed in the Great Flood. They believed everything in Genesis literally, without question.

The only exception here worthy of note is that St. Augustine had two interpretations of the days of Genesis 1, one very literal (six 24-hour days) and one non-literal (*i.e.*, the days were created instantaneously but enumerated for the contemplation by the angels). But this was not unusual in Augustine's writings. He often had different interpretations to various passages, which changed depending on what part of his career he was in. He was also part of the Alexandrian school that had a penchant for adding allegorical interpretations to many narratives of Scripture.

The important thing to understand, however, is that Augustine developed a second interpretation mainly because he became confused due to his ignorance of both the Hebrew and Greek languages. Although Augustine provided a six-day creation in the early part of *The Literal Meaning of Genesis* (published in 400 AD), he believed there were things left out of the narrative, such as the creation of the angels. He believed their absence would be solved by opting for an instantaneous creation.

In his book *Retractationes*, Augustine remarks on his original effort to form a literal interpretation of Genesis 1 in his work *Genesis Against the Manicheans*, written in 388 AD. He intended Genesis 1 to be a literally interpreted but with the resignation, "there are more questions raised than answers found and of the answers found not many have been established for certain."

As noted, one of his Augustine's chief difficulties regarded the creation of the angels, since neither Genesis 1 or 2 specified *when* they were created. For his own reasons, many of them due to his penchant for Platonism and his fearlessness to ask how things came to be as they are, Augustine felt obliged to include the angels somewhere in the Genesis 1 narrative.¹⁹⁷

¹⁹⁷ One of Augustine's favorite verses was Wisdom 11:20 "But you have disposed all things by measure and number and weight." He writes: "Now we are seeking to know whether the Creator, who has ordered all things in measure, and number, and weight, has assigned to the waters not just one proper place around the earth, but another also above the heavens, a region which has been spread around and established beyond the limits of the air" (*Confessions*, Bk 2, Ch 1, 2).

Thus he postulated that the creation of Light in Genesis 1:3 referred to the angels.¹⁹⁸ He writes:

What then is the meaning of the repetition in the case of the other works? Perhaps we have here an indication that on the first day, the day on which the light was made, under the term “light” is revealed the creation of spiritual and intellectual creatures, by which we understand all the holy angels and virtues....It is no wonder that when the holy angels were formed by the first creation of light, God first showed them that He was going to create the works to follow. And indeed they would not have known the mind of God except in so far as He Himself had revealed it to them.¹⁹⁹

Using this view as his anchor, Augustine proceeds to interpret the rest of Genesis 1. He then reasons that, since Genesis 1 does not mention “night” in any of its days, it suggests the focus is on the “day.” He writes:

The angels...have been made to share in the truth. Through all six days, therefore, no mention is made of night, but after the evening and morning there is one day; again after evening and morning, another day....These days have their nights, but it is the days, not the nights, that are described. For night belongs to day, not day to night, when the holy angels of heaven refer their knowledge of creatures in themselves to the honor and love of Him in whom they contemplate the eternal reasons by which creatures were made.²⁰⁰

He says very much the same in the *City of God* written some two decades later:

¹⁹⁸ On this question, Aquinas cites Basil, Strabus and Bonaventure: “The empyrean heaven rests only on the authority of Strabus and Bede, and also of Basil; all of whom agree in one respect, namely, in holding it to be the place of the blessed. Strabus and Bede say that as soon as it was created it was filled with angels; and Basil (Hom. 2 in *Hexaemeron*) says: ‘Just as the lost are driven into the lowest darkness, so the reward for worthy deeds is laid up in the light beyond this world, where the just shall obtain the abode of rest.’” *Summa Excursion*, Creation in Six Days, Ques. 66, Art. 3. Zwingli was the only other exegete to hold that the light of Genesis 1:3 referred to the angels.

¹⁹⁹ *Literal Meaning of Genesis*, Bk. 2, Ch 8, Nos.16-18.

²⁰⁰ *Literal Meaning of Genesis*, Bk 4, Ch 25, No. 42.

...which is the name given to the sky between the waters above and those beneath, that is the second day; when in the knowledge of the earth, and the sea, and all things that grow out of the earth, that is the third day; when in the knowledge of the greater and less luminaries, and all the stars, that is the fourth day; when in the knowledge of all animals that swim in the waters and that fly in the air, that is the fifth day; when in the knowledge of all animals that live on the earth, and of man himself, that is the sixth day.²⁰¹

From this he reasons that all creation was made simultaneously. He writes:

Hence, we can no longer take “day” to mean the form of the work created and “evening” its completion and “morning” the beginning of another work in the account of creation...But that day, which God has made, recurs in connection with His works not by a material passage of time but by spiritual knowledge, when the blessed company of angels contemplate from the beginning in the Word of God the divine decree to create...Finally, they refer this knowledge of the creature to the praise of eternal Truth, where they had beheld the form of the work to be produced, and this is the meaning of the statement that it was morning. Thus, in all the days of creation there is one day, and it is not to be taken in the sense of our day, which we reckon by the course of the sun.²⁰²

It is apparent that Augustine more or less forces himself to reject six literal days due to his self-imposed requirement to include the angels in Genesis 1. Whether inadvertently or by design, the angels become Augustine’s central focus in Genesis 1, since everything that is made is arranged for their contemplation. In effect, once the angels are included in Genesis 1:3, everything else in the chapter must be made to fit, and Augustine does his best to make it fit even if it doesn’t.

Although Augustine had a penchant for mixing spiritual and literal interpretations in his biblical exegesis,²⁰³ his attempt at such a

²⁰¹ *City of God*, Bk XI, Ch 7.

²⁰² *Ibid*, Ch 26, No. 43.

²⁰³ Augustine writes: “Brethren, I must tell you, and teach you according to my poor abilities, which the Lord giveth me for your benefit, and must convey to you what ye may hold as a rule in the interpretation of all Scripture. Everything that is said or done is to be understood either in its literal signification, or else it signifies

methodology in Genesis 1 is very unusual, as even he admits. Even though Augustine makes a concerted effort to fashion a literal interpretation of Genesis, throughout the discourse he slips into many spiritual interpretations, often catching himself, after long spiritual descriptions, to get back on track with the literal interpretation. Because of the difficulties that Augustine imagined with a strict literal interpretation of Genesis, whether by design or habit, the spiritual interpretations become somewhat of a controlling factor in his understanding, the most prominent, of course, is his conclusion to interpret the Light of Genesis 1:3 as a reference to angels. As such, Augustine is isolated from all the rest of the Fathers. It can be safely concluded that Augustine did not get his interpretation of Genesis 1 from Tradition. In fact, no Father before Augustine had an overriding concern about *when* the angels were created, and Scripture itself did not seem to share Augustine's concern.

As the anomalies in Augustine's view mount, his interpretation of the Light becomes increasingly difficult to accept. In Scripture, man's creation is specified with the words "and let us make man in our image," as well as being reiterated throughout Scripture (Gn 5:1; Dt 4:32; Is 45:12; Ec 7:29; Jm 3:9). If, as Augustine claims, the angels are the focus of the first verses of Genesis 1, then why would the text not just mention the word "angels," as even Genesis 1:26 mentions the word "man" when man is created? What is to be gained for the ancient writer by being so cryptic, especially when everything else in the chapter is called by its common name? Moreover, "light" is never specifically identified with angels in Scripture. If there is mention of luminous bodies as representing angels (Jb 38:7), men and God are also signified as such (2Pt 1:19; Ap 22:16; Ml 4:2), and thus, spiritually speaking, there is no distinction for the angels in regard to light. In addition, Scripture makes no issue of "angelic contemplation." All in all, Augustine's self-imposed "angelic" interpretation puts a tremendous

something figuratively; or at least contains both of these at once, both its own literal interpretation, and a figurative signification also" (*Sermons*, xxxix). "Wherefore, though light and darkness are to be taken in their literal signification in these passages of Genesis in which it is said, "God said, Let there be light, and there was light," and "God divided the light from the darkness," yet, for our part, we understand these two societies of angels, the one enjoying God, the other swelling with pride..." (*City of God*, Bk XI, Ch 33).

strain on the rest of Genesis 1's details, and it appears that it is a burden that the text simply cannot bear.

But Augustine has another "proof text" for his view. He begins by posing the following question:

But if the angelic mind can grasp simultaneously all that the sacred text sets down separately in an ordered arrangement according to causal connection, were not all these things also made simultaneously, the firmament itself, the waters gathered together and the bare land that appeared, the plants and trees that sprang forth, the lights and the stars that were established, the living creatures in the water and on the earth? Or were they rather created at different times on appointed days?²⁰⁴

Then Augustine brings his proof text:

In this narrative of creation [Genesis 1-2] Holy Scripture has said of the Creator that He completed His works in six days; and elsewhere, without contradicting this, it has been written of the same Creator that He created all things together. It follows, therefore, that He, who created all things together, simultaneously created these six days, or seven, or rather the one day six or seven times repeated.²⁰⁵

We notice that Augustine is not quite sure how the simultaneity of creation works itself out. Be that as it may, Augustine's citation of "...and elsewhere...it has been written...He created all things together" is referring to Sirach (Ecclesiasticus) 18:1. The Greek of the Septuagint reads: ὁ ζῶν εἰς τὸν αἰῶνα ἔκτισεν τὰ πάντα κοινῇ ("He who lives forever has created all things in common"). The word in question is κοινῇ (koine), which normally means "in common" or "without exception." But the Latin Vulgate from which Augustine read had translated κοινῇ with the words *omnia simul* in the sentence, "qui vivit in aeternum creavit *omnia simul* Deus solus iustificabitur et manet invictus rex in aeternum."²⁰⁶ The clause *omnia simul* means "at one time" or "altogether," but this is obviously a questionable translation of the Greek κοινῇ. Sirach 18:1, at least in the

²⁰⁴ *Literal Meaning of Genesis*, Bk. 4, Ch. 33, No 51.

²⁰⁵ *Literal Meaning of Genesis*, Bk 4, Ch 33, No 52.

²⁰⁶ The Douay-Rheims, which translates the Latin Vulgate, reads: "He that liveth for ever created all things together."

original Greek, is not saying that creation was made simultaneously or altogether, but of all that was made, the Lord created it all, without exception. The context of the passage certainly bears this out.²⁰⁷

The reason this mistake may have happened is that Augustine's knowledge of Greek was at an elementary level. When he was beginning his commentary on Genesis in 401 AD, his abilities in Greek were poor.²⁰⁸ It wasn't until Augustine was an old man that he had a modest reading ability of Greek. Unfortunately, Augustine was limited to the Vulgate's translation of Sirach 18:1, and thus he misinterpreted the meaning of the verse. Hence, his "proof text" cannot hold the weight Augustine put on it.²⁰⁹

²⁰⁷ "He who lives for ever created the whole universe; the Lord alone will be declared righteous...To none has he given power to proclaim his works; and who can search out his mighty deeds? Who can measure his majestic power? And who can fully recount his mercies? It is not possible to diminish or increase them, nor is it possible to trace the wonders of the Lord" (Sirach 18:1-6, RSV).

²⁰⁸ *Ancient Christian Writers*, ed. Johannes Quasten, et al, Vol. 1, New York: Newman Press, 1982, p. 5.

²⁰⁹ Another possibility for the Vulgate's choice of *simul* for κοινός is that there is a slight semantic overlap between the two words. This usually happens when time and material things are inadvertently interchanged. For example, although *simul*'s common meaning focuses on time (and thus it is usually translated as "at the same time" or "simultaneous"), it could also be confused with the idea of physical solidarity. If, for example, the people of a city stand together against an opposing army, it could be said that the people are both: (a) standing together, at the same time, against the army, and (b) standing together in solidarity against the army. Hence, the entire citizenry's simultaneous standing against the enemy will overlap in meaning with their common solidarity as one united group against the enemy. Naturally, if all the citizens did not stand together simultaneously against the enemy, it could not be said that they were "all together" in their opposition against the enemy. Barring such an example of semantic overlap, time is normally understood as a separate entity from space. Indeed, the normal meaning of "simul" deals with time, not commonality. The Latin Vulgate demonstrates that the normal meaning of κοινός' is "in common," since out of 59 uses of κοινός and its derivatives, only three are translated "simul" by the Vulgate (Sirach 18:1; Sirach 50:17; and Susanna 1:14), and in those three instances, it is due precisely to the semantic "overlap" described above. An examination of the other two instances besides Sirach 18:1 will illustrate this crucial point. The Catholic Revised Standard Version of Sirach 50:17 reads: "Then all the people together (koine/simul) made haste and fell to the ground upon their faces." This verse

But Augustine has yet another proof text that he feels is his strongest argument. Referring to Genesis 2:4-9 he writes:

Since by the terms “heaven” and “earth” the sacred writer...wished us to understand here the whole of creation, we might ask why he added, ‘and every green thing of the field’? I believe that he put the matter in this way in order to emphasize what day he spoke of when he said, ‘When day was made...But when we recall the order in which creatures were made, we find that all the grass of the field was created on the third day, before the sun was made (for it was made on the fourth day)...When, therefore, we hear, ‘When day was made, God made heaven and earth, and all the grass of the field,’ we are admonished to think of that day which may perhaps be a corporeal thing consisting in some sort of light unknown to us, or a spiritual thing made up of the united company of angels.²¹⁰

He concludes:

Now perhaps we have here a confirmation of what we tried to show in the previous book, that God created everything at one time. The earlier narrative [Genesis 1] stated that all things were created and finished on

offers a perfect illustration of the semantic overlap between “simul” and “koine.” The people “all made haste” (physically and spatially, as one, “common” physical grouping, “all together”). But they also necessarily made haste “at once,” that is, “at one time.” It is important to note, however, that when the people “fell to the ground,” they did not fall at the same precise instant. Like the members of any crowd acting on a common impulse, the members of this crowd fell to the ground at more or less the same time. In a similar sense the creation of all things took place “at once” – with relative simultaneity – but not “at the same precise instant.” Susanna 1:14 illustrates the same phenomenon. The Catholic Revised Standard Version reads: “And then together (simul/koine) they arranged for a time when they could find her alone.” Here two men, as one physical group, jointly, “in common” (“all together”), arranged something. But they also arranged something “at the same time.” In light of these examples one could say that *simul* in Sirach 18:1 was not so much a mistranslation of κοινός as it was a translation susceptible to misinterpretation through a narrowing of the semantic field. In light of the two other places in the Vulgate where κοινός is translated as *simul*, it is logical to conclude that *simul* in Sirach 18:1 was also meant to join together the two meanings of physical entirety and temporal simultaneity. For an Old Testament author (or translator) who believed in the six days of creation, this is hardly surprising, since God did create the universe in its entirety and at one time, namely, in the first six days of Earth’s existence.

²¹⁰ *Literal Meaning of Genesis*, Bk 5, Ch 2, No. 4.

six successive days, but now [Genesis 2] to one day everything is assigned, under the terms “heaven” and “earth,” with the addition also of “plants.” If, therefore, as I have already said, “day” were understood in its ordinary sense, the reader would be corrected when he recalled that God had ordered the earth to produce the green things of the field before the establishment of that day that is marked by the sun. Hence, I do not now appeal to another book of Holy Scripture to prove that God created all things together [Sirach 18:1]. But the very next page following the first narrative of creation testifies to this when it tells us, ‘When day was made, God made heaven and earth and every green thing of the field. Hence you must understand that this day was seven times repeated, to make up the seven days.’²¹¹

Here again, however, not knowing any of the Hebrew language, Augustine makes conclusions that are simply not supported by the original text.²¹² The specific phrasing of Gn 2:4 “in the day,” from the Hebrew בְּיוֹם, creates a Hebrew idiom meaning “when God made,” and thus, on strict grammatical grounds, this would disallow Gn 2:4’s “day” from disqualifying Gn 1:5’s “day” from being a twenty-four-hour days.

In addition, whenever the Hebrew *yom* (“day”) is used with an ordinal number in Scripture, it never refers to an indefinite or long period of time. In Genesis 1, there are six ordinal numbers enumerated: “the first day...the second day...the third day...” and so on until the sixth day. In contrast, Gn 2:4’s “day” does not have an ordinal number attached to it, which would eliminate it from comparison to Genesis 1.

Further, Augustine’s objection can be answered by focusing on the particular words used in Genesis 2 that are not used in Genesis 1. Gn 2:5

²¹¹ *Literal Meaning of Genesis*, Bk 5, Ch 3, No 6.

²¹² In answering an Objection, neither does Aquinas seem to catch the difference between the Greek and Latin, but still manages to give an adequate answer by making a distinction in the word *creation*: “Objection 2: Further, it is said (Ecclesiasticus 18:1): “He that liveth for ever, created all things together.” But this would not be the case if the days of these works were more than one. Therefore they are not many but one only. Reply to Objection 2: God created all things together so far as regards their substance in some measure formless. But He did not create all things together, so far as regards that formation of things which lies in distinction and adornment. Hence the word creation is significant” (*Summa Theologica*, Bk 1, Ques. 74, Art 2).

refers to the “shrub” (שִׁיחַ) of the field, but this word does not appear in Gn 1:11-12 or 1:29-30.²¹³ Rather, Gn 1:11-12 refers to the “herb” (עֵשֶׂב)²¹⁴ and the “tree producing fruit” (עֵץ פֵּרִי).²¹⁵ Hence, the first distinction between Gn 1:11-12 and Gn 2:5 is that the former indicates only two kinds of vegetation, whereas Gn 2:5 adds a third. Apparently, the two plants of Gn 1:11-12 served as food for Adam and Eve described in Gn 1:29-30.

Secondly, Gn 2:5 specifies that “not *every* herb of the field had yet sprung up,” which would mean there were some that had sprung up on the third day of creation, and some which sprung up on or after the sixth day of creation.

Thirdly, Gn 2:5 says the “shrubs” and “herbs” had not yet “sprung up” or “produced” (יִצְמַח) which contrasts with the “growth” (דָּשָׂא) of Gn 1:11-12. The word צִמְחָה (*tsemach*) refers to a budding for the next generation,²¹⁶ while דָּשָׂא (*dashah*) refers to an original sprouting of the first generation of fruits. Hence, Adam and Eve’s food, on the first day of their creation, was the original fruit of the two plants in Gn 1:11-12, while the “shrubs” and the budding plants of Gn 2:5 would have to wait until the appropriate time for growth.

All in all, the reason we can levy these critiques on Augustine’s view of Genesis is that he invited such criticism himself. In *The Literal Meaning of Genesis* he writes:

Whoever, then, does not accept the meaning that my limited powers have been able to discover of conjecture but seeks in the enumeration of the days of creation a different meaning, which might be understood not in a prophetic or figurative sense, but literally and more aptly, in interpreting the works of creation, let him search and find a solution

²¹³ שִׁיחַ is used four times in the OT to refer to some type of plant (cf. Gn 2:5; 21:15; Jb 30:4, 7), yet a plant that does not produce fruit, but some other kind of edible product, e.g., vines.

²¹⁴ עֵשֶׂב appears in also in Gn 2:5; 3:18; 9:3; Ex 9:22,25; Dt 11:15, *et al.* This may refer to plants that produced grains, such as wheat, corn, etc.

²¹⁵ פֵּרִי (*peri*) is used also in Gn 1:29; 30:2; Ex 10:15; Lv 23:40; *et al.*

²¹⁶ This meaning can be seen, for example, in Jb 38:27; Ps 85:12; 104:14; cf. Gn 41:6; Ex 10:5; Lv 13:37; Dt 29:22; Jg 16:22; 2Sm 10:5; Ps 132:17, *et al.*

with God's help. I myself may possibly discover some other meaning more in harmony with the words of Scripture. I certainly do not advance the interpretation given above in such a way as to imply that no better one can ever be found, although I do maintain that Sacred Scripture does not tell us that God rested after feeling weariness and fatigue.²¹⁷

In *The City of God*, he is a bit more cautious about his view:

But simultaneously with time the world was made, if in the world's creation change and motion were created, as seems evident from the order of the first six or seven days. For in these days the morning and evening are counted, until, on the sixth day, all things which God then made were finished, and on the seventh the rest of God was mysteriously and sublimely signalized. What kind of days these were it is extremely difficult, or perhaps impossible for us to conceive, and how much more to say!²¹⁸

At many points we find Augustine still vacillating between the literal and spiritual interpretation. For example, regarding the light of the first day he writes in *The City of God*:

And first of all, indeed, light was made by the word of God, and God, we read, separated it from the darkness, and called the light Day, and the darkness Night; but what kind of light that was, and by what periodic movement it made evening and morning, is beyond the reach of our senses; neither can we understand how it was, and yet must unhesitatingly believe it. For either it was some material light, whether proceeding from the upper parts of the world, far removed from our sight, or from the spot where the sun was afterwards kindled; or under the name of light the holy city was signified, composed of holy angels and blessed spirits, the city of which the apostle says, 'Jerusalem which is above is our eternal mother in heaven.'²¹⁹

At times Augustine seems far from his spiritual interpretation, as it seems here in the *Confessions* (400 AD), written a year before *The Literal Meaning of Genesis*:

²¹⁷ Bk 4, Ch 28, No 45.

²¹⁸ *City of God*, Bk XI, Ch 6.

²¹⁹ *City of God*, Bk XI, Ch 7.

For very wonderful is this corporeal heaven, of which firmament, between water and water, the second day after the creation of light, Thou saidst, Let it be made, and it was made. Which firmament Thou calledst heaven, that is, the heaven of this earth and sea, which Thou madest on the third day, by giving a visible shape to the formless matter which Thou madest before all days.²²⁰

In other works, Augustine applies his spiritual interpretation in other directions:

In the creation God finished His works in six days, and rested on the seventh. The history of the world contains six periods marked by the dealings of God with men. The first period is from Adam to Noah; the second, from Noah to Abraham; the third, from Abraham to David; the fourth, from David to the captivity in Babylon; the fifth, from the captivity to the advent of lowliness of our Lord Jesus Christ; the sixth is now in progress, and will end in the coming of the exalted Savior to judgment. What answers to the seventh day is the rest of the saints, not in this life, but in another.²²¹

While we don't have a statement from Augustine that he viewed the days of Genesis as twenty-four-hour periods, Augustine does stipulate that he believes the days of the Flood to be twenty-four-hour days:

It is plain that the day then was what it now is, a space of four-and-twenty hours, determined by the lapse of day and night; the month then equal to the month now, which is defined by the rise and completion of one moon; the year then equal to the year now, which is completed by twelve lunar months, with the addition of five days and a fourth to adjust it with the course of the sun. It was a year of this length which was reckoned the six hundredth of Noah's life, and in the second month, the twenty-seventh day of the month, the flood began, a flood which, as is recorded, was caused by heavy rains continuing for forty days, which days had not only two hours and a little more, but four, and-twenty hours, completing a night and a day. And consequently those antediluvians lived more than 900 years, which were years as long as those which afterwards Abraham lived 175 of, and after him his son Isaac 180, and his son Jacob nearly 150, and some time after,

²²⁰ *Confessions*, Bk XII, Ch 8.

²²¹ *Contra Faustus*, Bk XII, 8.

Moses 120, and men now seventy or eighty, or not much longer, of which years it is said, “their strength is labor and sorrow.”²²²

All in all, as regards evolutionary or long-age theory, no one can have Augustine come to their aid. For whether the Creation was created in Augustine’s “one day” or over six twenty-four-hour days, the fact remains that Augustine’s second interpretation of Genesis 1 believed all of creation came from nothing and occurred instantaneously, in a single moment, not over a long period of time. If anything, Augustine’s “day” is infinitesimally less than twenty-four hours, not infinitesimally more. As such, Jaki and Robinson are left without a mentor in the patristic period.

Fr. Robinson: Since science has now provided substantial evidence that universe and earth are much older than 6000 years, and that they developed over long periods of time, instead of having been created fully formed, then I suggest that we should, in the spirit of the Fathers, reject YEC as incompatible with a proper understanding of Scripture.

R. Sungenis: My assessment is that we have no choice but to reject Fr. Robinson’s view as fully compatible with YEC or with the Bible or Tradition, since he obviously rejects them for his own version of cosmology and cosmogony. Anyone, such as Fr. Robinson, who can’t see that modern atheistic science wants to have long-ages so they can discredit the Bible and avoid its authority, is simply naïve. Likewise, anyone who depends on the equivocal science of radiometry to provide “substantial evidence that the universe and earth are much older than 6000 years,” is also quite naïve, as we shall see later.

Fr. Robinson: Besides, none of the Popes who rejected YEC considered themselves as censoring the Fathers.

R. Sungenis: I don’t know of any pope who rejected YEC, at least officially. If a pope did so, then he would be going against the 1909

²²² *City of God*, Bk 15, Ch 14. As some of the other Fathers believed, Augustine also held that the world in his day was less than 6,000 years old: “...according to Scripture, less than 6000 years have elapsed since He began to be...”(*City of God*, Bk 12, Ch 12).

Pontifical Biblical Commission that said the Hebrew word YOM (day) could be taken literally or figuratively, and he would also be rejecting the Fathers and the medievals. Conversely, I know of popes who, in their personal opinion, may have sided with a long-age view, but these popes came out of the same Jaki-Lemaître school that Fr. Robinson came from. What else would we expect from them? The point remains that none of these modern popes made either long-ages or evolution into Catholic doctrine. And for that matter, no modern pope ever officially taught the Church was now overturning geocentrism in favor of heliocentrism.

Fr. Robinson: It is not a question here of choosing either the teaching of the Fathers or choosing the late 19th and early 20th century magisterial teaching on Scriptural exegesis. Rather, it is a question of choosing both or choosing neither.

R. Sungenis: Fr. Robinson can dance around it all he wants, but the fact is the Fathers did not teach either long-ages, evolution or heliocentrism, and neither did Aquinas and the medievals. THAT, and that only, is the tradition of the Church. To go against it, one would need positive and irrefutable proof they were wrong. Until then, Fr. Robinson has absolutely no right to teach as truth that the Earth and universe are very old.

April Questions

Question: Does The Realist Guide speak about the discovery of exoplanets and the possibility of life on other planets?

Fr. Robinson: Answer: You are in luck; the book does speak about aliens! Specifically, there is a section running from pages 421-424 entitled “The search for aliens”. In that section, I indicate two reasons why materialists desperately desire that life be found on other planets:

As support for Darwinian evolution – in the view of evolutionists, life evolved on Earth by a mere random set of occurrences. Because there is little to no science behind this claim and since it conflicts with common sense, it seems highly implausible to the common man. If, however, life were found on other planets, that would make such an evolution seem more likely. It would give the appearance that all you need for life to

appear is raw chemicals and the right planet with the right circumstances. After all, the evolutionists could claim, we are finding life all over the universe, so it must appear spontaneously by random processes.

As support for the so-called Copernican principle – materialists have a theology and, in that theology, human beings are insignificant because they are not the product of a loving God, but rather are the product of blind material forces. Atheistic scientists have tried to give a scientific veneer to this theology by endowing it with the title of a ‘principle’ and linking it to the name of the great Catholic scientist and cleric Nicolaus Copernicus. They co-opt Copernicus for their delegitimizing of human beings because he advocated heliocentrism, in which system Earth and the humans on it are not at the center of the universe. According to the atheists, if humans are not at the geographic center of the universe, they are insignificant. And if they are insignificant, they must not be created by a God who loves them.

It turns out that both of these ideas are wrong-headed. If we found life elsewhere in the universe, that would not prove that life appeared there by random processes. And the fact that human beings are not at the center of the universe says little to nothing about their significance. In fact, the medievals believed that Earth was at the center bottom of the universe and life was a process of striving to reach a higher place than Earth, in the vertical direction, something like a third or fifth heaven.

In the end, science is able to show definitively that life cannot come from non-life by merely natural processes. The reason is that there is an immense chasm of complexity between the most complex of non-living things and the least complex of living things. This chasm cannot be bridged by random processes, with the laws of the universe as we know them. Thus, if there is life anywhere else in the universe, it will be there because God put it there, the same God Who made humans the most significant creatures in His cosmos by conferring upon them the power of reason and so creating them in His image.

R. Sungenis: Fr. Robinson's assertion that "human beings are not at the center of the universe says little to nothing about their significance," is about as "wrong-headed" as believing in evolution. It is common sense that if we are at the center of the universe an evolutionist will have a hard time explaining how that situation could happen by time and chance. The only universe that fits into the evolutionary scheme is one that places the Earth in some remote region of the universe and makes it no different than any other celestial body.

If not, then why do Hawking and Hubble, to name just a few, use their Big Bang model as the deterrent to having the Earth in the center of the universe? They both realized that having the Earth in the center changes everything, not only because it takes away their 'time and chance' universe, but because it verifies the veracity of the Bible like nothing else, since Genesis 1 says that the Earth came first, doesn't move, and everything else was built around it.

But, of course, Fr. Robinson doesn't believe Genesis' account of the Earth's special place, so he is caught in a quandary, which forces him to claim there is no difference between being in the center and being on the remote perimeter. This is the "worldview" of Fr. Paul Robinson, the view he decided upon before he ever did any fast and hard contemplation that Genesis 1 is just as inspired and inerrant as the Gospel of John.

Question: You have stated that "If God created everything fully formed, according to the literal sense of Genesis, then, based on what we know about planets and stars, they would have the appearance of having been formed over millions of years, but the Bible would be telling us that they were formed in an instant. In other words, the reality that God has created would be telling us one thing and the Bible would be telling us another." But wouldn't the same thing be true with the creation of Adam, whom the Church holds us to believe was created directly by God?

Fr. Robinson: Answer: It is true that it is part of Catholic belief that Adam was created directly by God, while it is not part of Catholic belief that God created the universe in a fully formed state.

R. Sungenis: Apparently Fr. Robinson hasn't read Vatican I's statement on the Creation, or he has dismissed this infallible document as another "mistake" of the magisterium. Vatican Council I says:

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 produced by God from nothing*, or, shall have said that God created not by a volition free of all necessity, but as necessarily as He necessarily loves Himself, or, shall have denied that the world was created to the glory of God: let him be anathema.

Fr. Robinson: My claim is that a problem arises if we hold, with Protestant creationists, that the Bible teaches that God created the universe fully formed, while our senses are telling us that heavenly bodies have a long history of formation. The problem is that this creates (no pun intended) a conflict between faith and reason. A person has to choose between what God is supposedly saying in the Bible and what his reason is telling him about the universe. The Catholic Church never places her children in such an either-or situation with faith and reason,

R. Sungenis: Yes, the Catholic Church never does so, but Fr. Robinson certainly does. The Catholic Church has never said the results of radiometric dating from modern science is the official truth of the Catholic Church, but Fr. Robinson has staked his whole book and his career on the idea that modern conclusions of radiometry and sedimentology are correct.

Fr. Robinson: ...while Protestants have historically not only been content with such a situation, but some of their leading lights, such as Luther, consider such a situation to be a mark of true religion. The reason for this is that they often see reason as being outside the realm of faith or even as being inimical to faith, while Catholics see reason as being an important aspect of religion and faith.

R. Sungenis: Notice how Fr. Robinson has the habit of equating reason with his personal conclusions about modern science's claims. It is as if modern science, at least in radiometry, is tantamount to reason in Fr. Robinson's "worldview." But this is a total fallacy. Reason is the thinking process we apply to the data collected, but reason can be correct or

incorrect about what the data means; and the data can also be unclear or mysterious on its own. Later in our book we will examine in detail the fallacious assumptions and equivocal results of modern radiometry, but Fr. Robinson apparently didn't do his research well enough to find these caveats, or, at the least, he just ignored them and decided to make it the very foundation of his book. That's not reason. That's anti-reason, otherwise known as bias, partiality, twisting or even downright lying.

Fr. Robinson: That being said, the parallel between God creating the universe fully formed and God creating Adam fully formed is not accurate. For one thing, Adam is a single person, not the whole of the material reality that is being investigated by scientists.

R. Sungenis: Who cares what is being “investigated by science”? Their exploits are not the criterion for how we judge either Scripture or the Church's statement at Vatican I that God created the universe in its “whole substance,” not molecule by molecule over billions of years. The real problem here is that Fr. Robinson is fishing for answers, since common sense tells us that if God created Adam whole then he created the rest of the creation whole, since God knows the irreducible complexity of the creation. Since Fr. Robinson has already stuck his foot in the quicksand by accepting the long-ages of modern radiometry, he must then have something to fill that time. Since Adam will not fit, he tries to make the rest of the five days of creation fit, which then leads him to accept the Big Bang. Before you know it, Fr. Robinson has totally destroyed the text of Genesis 1 and has become just like his mentors—agnostics who can't figure out whether they believe the Bible or not.

Fr. Robinson: Secondly, Adam would not in any way have been deceived about his age. Though his body would appear to have gone through the normal stages of childhood and adolescence, yet he would not have a belly button, nor would he have any memories of life before the day of his creation. Those pieces of evidence from reason would be sufficient to confirm what God was asking him to hold on faith, namely, that he was created directly.

If God was a being who wanted to teach Adam and his descendants to mistrust their reason as something foul—an objective for Luther’s God—then He would have chosen to create Adam with a belly button and with fake memories of his childhood and growing up in Eden. In such a scenario, we would have an equivalent parallel with a universe that was created fully formed, yet having the appearance of being ancient.

R. Sungenis: Fr. Robinson’s ploy here is to make his reader believe that the world we see *looks* old and thus *is* old. In this instance, just replace Adam with a modern radiometric scientist who, in Fr. Robinson’s worldview, sees through the decaying of isotopes—at least thinks he sees—that the Earth and the universe are very old, billions of years old. But if the Earth were really young yet this scientist believes he sees the world is old, Fr. Robinson interprets this scenario such that God would be lying to the scientist by making a young world look old. As such, Fr. Robinson doesn’t even consider the possibility that it is the scientist himself who is the real deceiver. He doesn’t consider the scientist may lie his way through the data, that is, making it look old when he knows the evidence shows it is really young. Why would the scientist do this? Because he is bent on getting God off the stage of human history so that he doesn’t have to account for his sins.²²³ In his mind, he can convince himself that God doesn’t exist and the universe just popped into being by time and chance over long ages so that the Earth, and he himself, are just insignificant pieces of dust answerable to know one. As such, Fr. Robinson has more faith in man and his machines than he does in God and the Bible. He twists and distorts the latter in order to make room for the former. And he started down this slippery road when his ‘reasoning’ made him believe that the claims of radiometry made modern science more reliable than the very word of God.

²²³ John 3:19-21: “...the light came into the world, but people preferred darkness to light, because their works were evil. For everyone who does wicked things hates the light and does not come toward the light, so that his works might not be exposed. But whoever lives the truth comes to the light...”

March Questions

Question: [This article](#) seems to provide decisive evidence for Darwinian evolution. But your book claims that there is no solid evidence for evolution, at least for macro-evolution.

Fr. Robinson: Answer: I completely agree with the article's presentation of the way that science works. If I were to put it in my own language, it involves these steps:

Collection of empirical data from reality.

Formation of a model, a scientific theory, that fits the data.

Making predictions as to what scientists should find in reality if the model is true.

Verification or falsification of the model by testing its predictions.

I also agree with the claim of the article that evolutionary theory predicts that we will find, in reality, genetic similarities among all living things such that we should be able to construct an evolutionary tree of descent of all things in the biological world from a common ancestor.

Where I differ from the article is that it claims that evolution's prediction has been verified. I would say it definitely has not. Scientists who are in the business of making trees of life on the basis of genetic similarity routinely make different ones, because the tree turns out very differently depending on their point of comparison, i.e. what aspect of the genome they seek to compare among animals. This fact calls into question the very idea that an argument for common descent can be made on the basis of genetic similarity.

For a thorough, solid, and even magisterial treatment of why all attempts of evolutionists to do a "phylogenetic reconstruction" (construction of a tree of life on the basis of genes) have only resulted in chaos, I cannot recommend highly enough chapter 6 of Darwin's Doubt. A quotation from a 2009 New Scientist article on page 119 of that book sums up the situation: "today

the tree-of-life project ‘lies in tatters, torn to pieces by an onslaught of negative evidence’.”

R. Sungenis: This is really more of a conundrum for Fr. Robinson than he is admitting. As noted previously, Fr. Robinson’s belief in long-ages turns around to haunt him, for unlike the evolutionist who has a logical reason for wanting long-ages (*i.e.*, so that his universe can evolve to a point in which molecules form into a man), Fr. Robinson doesn’t. Since he doesn’t believe in evolution, this only begs the question as to why he needs or wants long-ages. If reason is our guide, there simply is no logical reason why long-ages would be part of God’s creation plan, or why we, using our reason, come to the conclusion that God needed long ages to create man. It simply doesn’t fit with everything else in the Bible. If Adam is created instantaneously, and Eve is also created instantaneously from the rib of Adam,²²⁴ and they fall into sin together in a very brief time, what reasonable explanation could Fr. Robinson offer that would make us believe that such a short creation and fall would necessarily need to have billions of years prior to it, especially when everything else in the Bible occurs relatively quickly? As we use our reason to figure it out, Fr. Robinson’s worldview simply makes no sense.

In fact, Scripture suggests just the opposite of what Fr. Robinson is proposing. In Romans 9:28, for example, St. Paul says, “for the Lord will make a full and quick end of the matter upon the earth.” Other translations carry the same idea: “The Lord will act by closing the account and shortening the time,” *i.e.*, he will not prolong indefinitely the period of his long-suffering...*cf.* the RSV: ‘the Lord will execute his sentence with rigor and dispatch’” (*BAGD*, p. 792).²²⁵

²²⁴ Pope Leo XIII, in his 1880 encyclical *Arcanum Divinae Sapientiae*, stated this about Creation: “We record what is to all known, and cannot be doubted by any, that God, on the sixth day of creation, having made man from the slime of the earth, and breathed into his face the breath of life, gave him a companion, whom He miraculously took from the side of Adam when he was locked in sleep.”

²²⁵ Other translations are: DR: “For he shall finish his word and cut it short in justice: because a short word shall the Lord make upon the earth”; KJV: “For he will finish the work, and cut it short in righteousness: because a short work will the Lord make upon the earth,” which follow the uncials: Ⲛ^c D G K P Ψ 33 88, as well as many other minuscules, as well as Chrysostom, Theophylact, *et al.* The

The other clue in Scripture that God is not interested in having billions of years for matter, plants and animals to exist prior to his creation of Adam is that none of the chronologies in Genesis or the Chronicles offer any such notion to us. The chronologies are short and compact. The only “long” factor in them is that the antediluvian chronologies have men living for almost a thousand years, but this only makes sense since the post-diluvian world had to suffer continually with the catastrophic upheaval of the environment left by the Great Flood and thus the ages of men were decreased to a couple hundred or less years due to the deleterious effects of a ravaged world.

Of course, in Fr. Robinson’s view of Scripture, the chronology of both Genesis 1, 5 and 11, are mere story filler, made up by some author, according to the Graf-Wellhausen theory, who came out of Babylonian captivity and wanted a fresh new story to invigorate the Jews going back to Jerusalem, and nothing more.

Hence, the idea there were billions of years before Adam is not only an odd idea, it has no precedent in Scripture, especially when one understands the limited time Genesis gives as the creation period—six 24-hour days—as the precedent for how much time God will allow. God is certainly a reasonable deity, so unless Fr. Robinson can give us some reasonable answer to why God would insist on long-ages in the billions of years when, in fact, there is no such precedent in Scripture, the Patristics or the Magisterium’s decrees, then Fr. Robinson is the odd man out. Fr.

NAB has: “for decisively and quickly will the Lord execute sentence upon the earth”; NAS: “For the Lord will execute his word upon the earth thoroughly and quickly”; NJB: “for without hesitation or delay the Lord will execute his sentence on the earth”; NRS: “for the Lord will execute his sentence on the earth quickly and decisively,” from $\text{פ}^{46\text{vid}}$ ס^* A B, Augustine, *et al.* The Hebrew of Is 10:23 has: $\text{כִּי כִלָּה וּנְחַרְצָה אֶרֶנִּי... עֲשֵׂה בְקֶרֶב כָּל הָאָרֶץ}$ (“For the Lord...shall make a full end, as ordained, in the midst of the land”). After Isaiah’s writing of his prophecy around 700 BC, God brought a “full and quick end” against Judah about 100 years later in 586 BC as they were carried off to Babylon for 70 years. Paul’s use of the LXX version, which includes συντεταμμένον (“a short work” or “quick work”), his writing of Romans in 57 AD bridged a “short time” to 70 AD when the Jews were brought to a “full end” (*cf.* Lk 21:20-24; Ac 13:44-52). At the very least, the Bible’s viewpoint is against long-ages.

Robinson got on the wrong track, of course, when he didn't use his reason the right way and allowed the equivocations of modern radiometry to rule his thoughts and conclusions.

Question: Why shouldn't theological arguments be made for something like geocentrism?

Fr. Robinson: Answer: For two reasons: a) geocentrism has no direct bearing on matters of faith; b) geocentrism has been soundly disproved by empirical evidence.

R. Sungenis: In regards to Fr. Robinson's statement: "a) geocentrism has no direct bearing on matters of faith," the only way a faithful Catholic who holds to the tradition and the magisterium's decrees could claim what Fr. Robinson is claiming is that he would have to be ignorant of the tradition and the magisterium's decrees; or, know them but deliberately refuse to accept them.

As we noted previously, it is a veritable fact that the Catholic magisterium of the 1600s made geocentrism to have a direct bearing on matters of faith. Robert Cardinal Bellarmine argued to both Fr. Foscarini and Galileo that upholding the patristic doctrine of geocentrism was as important to the faith as saying that Jacob had 12 sons instead of 11. Why? Because since Scripture taught geocentrism as much as it did any other truth, whether it be Jacob having 12 sons or Jesus rising from the dead, to deny any propositional truth Scripture taught was, in effect, to deny all of what the Scripture taught. In the Latin terminology Bellarmine used, it was the rule of "*ex parte decentis*." In other words, if one denies a part of Scripture, he denies the whole of Scripture. Obviously, if Scripture could err in one place, it could err in another, until the whole Scripture would lose its veracity as the inspired and inerrant word of God.

Accordingly, Urban VIII argued to Cosimo Medici, the grand duke of Tuscany who was Galileo's employer, that Galileo's doctrine was one of the most insidious, pernicious and destructive heresies ever to confront the Church.²²⁶ As such, two popes, over 16 years, affirmed Bellarmine's and

²²⁶ In the words of Francesco Niccolini (the pope's ambassador to Tuscany): "I replied by again humbly begging him to consider that Mr. Galilei is

his Holy Office's finding and thus denounced Galileo and the heliocentric theory as a "formal heresy." Not only did the popes condemn the heliocentric theory, they both (Paul V and Urban VIII) sent letters out to all of the Catholic officials in Europe in order to bind its teachers and parishioners to the decrees of the Holy Office and the popes' affirmation of those decrees. This is the history.

Sorry to say, it appears Fr. Robinson doesn't know the history, much less deal with it in his book or on his website. Essentially, this means Fr. Robinson is engaging in a cover up. With a wave of his hand he dismisses it all. It shows to what extent Fr. Robinson will either ignore or twist the Catholic history to promote his theory of long-ages and heliocentrism, neither of which promote the faith.

Fr. Robinson: In regard to a, it is true that Catholic authors of old have drawn some spiritual reflections from the idea of the earth as being at the center of the universe. However, this is not to use geocentrism as a support for the faith, but rather as a means to stimulate reflection in a faith that is already believed.

R. Sungenis: This is nothing but historiography. Which "Catholic authors" does Fr. Robinson have in mind? He doesn't tell us. Be that as it may, the

Mathematician to His Highness[Cosimo Medici], currently employed and salaried by him, and also universally known as such. His Holiness answered that this was another reason why he had gone out of the ordinary in this case and that Mr. Galileo was still his friend, but these opinions were condemned about sixteen years ago and Galileo had gotten himself into a fix which he could have avoided; for these subjects are troublesome and dangerous, this work of his is indeed pernicious, and the matter is more serious than His Highness thinks....Then he added, telling me to report it fully to His Most Serene Highness, that one must be careful not to let Mr. Galilei spread troublesome and dangerous opinions under the pretext of running a certain school for young people....He said that he had prohibited works which had his pontifical name in front and were dedicated to himself, and that in such matters, involving great harm to religion (indeed the worst ever conceived), His Highness [the Grand Duke] too should contribute to preventing it, being a Christian prince".... In fact, the Pope believes that the Faith is facing many dangers and that we are not dealing with mathematical subjects here but with Holy Scripture, religion, and Faith".... and thus to endanger Christianity with some sinister opinion; furthermore, he had been told by His Holiness that, since we are dealing with dangerous dogmas." (*Le Opere di Galileo Galilei*, vol. 14 and Vol. 19, translated by Finocchiaro in *The Galileo Affair*.)

real battle was occurring between the magisterium and the heliocentrists, such as Foscarini, Zuniga, Copernicus, Kepler and Galileo. In that battle, there was no time the magisterium ever drew merely “spiritual reflections” and at no time did they deny that geocentrism had any doctrinal value for the faith. If there were, why doesn’t Fr. Robinson cite any?

These Catholic officials, from the college of cardinals to the pope himself, were in a bitter battle over the matter of both the veracity of the patristic witness and the veracity of Sacred Scripture. On the theological side, from 1520-1563, Luther and Calvin were condemned for rejecting the Church’s traditional teaching on Justification, with Robert Bellarmine leading the way. On the science side, from 1543-1633, Copernicus, Foscarini, Zuniga, Kepler and Galileo were condemned for rejecting the Church’s traditional teaching on geocentrism.

As for the question of whether the popes’ decisions were infallible is somewhat anachronistic since the Church hadn’t formulated her doctrine of papal infallibility until 250 years later under Pius IX in 1870. Nevertheless, unless the Church herself makes an official statement regarding the fallibility or infallibility of the 1616 and 1633 decrees against Galileo, no one can argue that either Paul V or Urban VIII erred in their confirmation of these anti-heliocentric decrees.

Of course, these facts just beg the question, for prior to the Galileo case when popes declared a certain belief heretical and forbade their parishioners from accepting the heresy, the modern Church has unofficially accepted those papal decisions as infallible; thus retroactively applying the 1870 decree of papal infallibility. If previous decrees were retroactively applied, then why wouldn’t the papal decrees against Galileo and heliocentrism be so applied, especially since heliocentrism was declared a “formal heresy” and Galileo was then convicted of “vehemently suspect” of that very heresy? Was the guidance of the Holy Spirit to protect the pope from doctrinal error somehow missing in the years from 1543 to 1633? If so, why? Why, in all places of the Church’s history would the Holy Spirit be suddenly evacuated from the situation when, as noted above, the pope and his cardinals considered Galileo’s doctrine one of the worst to hit the Church in its entire history? To put it mildly, Fr. Robinson has a lot to answer for, but again, none of this is covered in his

book, yet he deems himself some kind of authority to decide the case for all his readers. The audacity speaks for itself.

Fr. Robinson: It is not the practice of the Church to bind her members to believe in a certain interpretation of the Bible, unless a dogma of faith is concerned.

R. Sungenis: As noted above, Fr. Robinson has no way of proving his contention, since the Church is the only entity that could officially judge whether the 1616 and 1633 decrees of Paul V and Urban VIII against heliocentrism were incorrect, but the Church has not done so. All we have had are personal opinions, unless, of course, Fr. Robinson wants to show us an official and binding decree from the Church stating that it has overturned the official proclamations of 1616 and 1633 against heliocentrism, and that only heliocentrism is to be accepted today by Catholics. He can't because there isn't any. The only thing we have today are self-appointed clerics, like Fr. Robinson, who make their personal opinion into veritable doctrine for everyone else.

As for "dogma," Bellarmine answered this question since the inerrancy of Scripture is a dogma of the Church. Thus, anyone who says that part of the Bible is in error, *ipso facto* means he has gone against the dogma of biblical inerrancy. But, of course, in following the Jaki-Lemaître school of hermeneutics, it is commonplace for them to reject the dogma of biblical inerrancy. Following the liberals (de Chardin, Rahner, DeLubac, Brown, *et al*) who teach that, with regard to the Bible, inerrancy only applies to the Bible's teachings on salvation and excludes everything else the Bible says, Fr. Robinson seems to be following in their footsteps.

Fr. Robinson: Thus, Catholics are bound to believe that there was a literal Adam and Eve, that they are the parents of the entire human race, and that they committed a sin that is passed on to everyone. These historical truths are closely connected to important dogmas of faith.

R. Sungenis: So here we have a perfect example of how Fr. Robinson dichotomizes Scripture in accord with his own whims. Notice how Adam and Eve, created on the sixth day, are the only thing he claims Catholics are to believe from Genesis 1-3. But where does the Church teach that

Catholics are free to disregard the previous five days of Creation? Where does the Church teach that the previous five days are not also a dogma of the Church, regardless whether one wants to interpret “day” as 24-hour or a “certain amount of time”? The answer is: nowhere. But Fr. Robinson want to make a dichotomy and marginalize certain Scriptures because that will allow him to inject his long-ages into Genesis 1, something the Church has never officially allowed.

Fr. Robinson: But there is no direct connection between geocentrism and any dogma.

R. Sungenis: Again, we can tell that either Fr. Robinson has not read the 17th century official documents from the Church against Galileo and heliocentrism, or he just rejects them outright. Bellarmine made it clear that geocentrism was considered a doctrine of the Church because to deny what the Bible said, regardless whether its statement referred to salvific matters or mundane matters, it was inspired and inerrant in whatever it said. There could be no argument from Galileo that the proper way to interpret the geocentric passages was by metaphor, since all the Fathers, with the medievals following, gave us only a literal interpretation. Once that interpretation was set in stone, no one could change it; and this is why the Council of Trent said that once the Fathers are determined to be in consensus about any interpretation of the Bible, we are obliged to follow it. It’s the same reason that we believe Christ is the Eucharist (as opposed to Christ being only symbolically present), since this was the only interpretation the Fathers, in consensus, gave us to believe.

Fr. Robinson: This is why medieval scholastics, centuries before Copernicus, were able to treat in all freedom both theological and scientific arguments for heliocentrism. This is why Copernicus himself, in his famous book arguing heliocentrism on scientific grounds, also gave arguments why heliocentrism was not against the Bible and also why it redounded more to the glory of God.

R. Sungenis: Again, Fr. Robinson misses the mark. First, before the Church made it universally known in 1616 and 1633 that to believe or propound heliocentrism was a formal heresy, no one, according to Catholic canonical protocol, would be deemed a heretic for entertaining the concept

of heliocentrism. This is basic canon law. In the same way, no one who questioned the canon of Scripture, prior to the Church's infallible declaration at the Council of Trent, could be condemned as a heretic. Leaving out this important truth, Fr. Robinson totally distorts the history.

Second, there were only a few medieval scholastics who even ventured into the area of cosmology, much less heliocentrism. The only ones were, Nicolas Oresme, Bishop of Lisieux (d. 1382)²²⁷ who suggested that the Earth might be rotating, and Nicholas of Cusa, Bishop of Brixen (d. 1464)²²⁸ who posited that the Earth was moving in some fashion, although not specifically by rotation or revolution. Naturally, both Oresme and Cusa claimed that they were not required to interpret Scripture literally.

Third, as for Copernicus, yes, he also gave reasons why heliocentrism was not against the Bible, but he was soundly rejected by the Catholic authorities and his book was placed on the *Index of Forbidden Books* in 1559. For Paul III, having the distinction of forming the *Congregation of the Roman Inquisition* in 1542 for the precise purpose of defending the Catholic Church from heresy,²²⁹ the time had come for a confrontation with those who were teaching that Scripture need not be interpreted

²²⁷ Oresme's specific assertion was that the Earth might rotate on an axis. His works were, *Traité de la sphère*, later printed in Paris with the second edition published in 1508, and *Traité du ciel et du monde*, published in 1377, his heliocentric views are expressed in chapters 24 and 25.

²²⁸ From Cusa's book *De docta ignorantia* ("Learned Ignorance"). Based on his concept of an infinite universe, Cusa argues: "...it is impossible for the machine of the world to have any fixed and motionless center; be it this sensible earth, or the air, or fire or anything else. For there can be found no absolute minimum in motion, that is, no fixed center, because the minimum must necessarily coincide with the maximum....The world has no circumference, because it is a center and a circumference, and thus had a beginning and end in itself, the world would be limited in respect to something else....The earth, therefore, which cannot be the center, cannot be lacking in motion; but it is necessary that it move in such a way that it could be moved infinitely less. Just as the earth is not the center of the world, so the sphere of the fixed stars is not its circumference....Thus it is the blessed God who is the center of the world" (Alexander Koyré, *From the Closed World to the Infinite Universe*, 1957, pp. 11-12). We might say that Cusa was the first Relativist to express his thought in relativistic terms.

²²⁹ Also known as the Congregation of the Holy Office or the Sacred Congregation. In 1965, Pope Paul VI changed the name to the Congregation for the Doctrine of the Faith.

literally when it addressed issues of the celestial bodies. Bartolomeo Spina, the Master of the Sacred Palace from 1542 until his death in 1547, sought to have Copernicus' book banned, which was eventually carried out by his Dominican colleague Giovanimaria Tolosani, who died two years later in 1549. Similar to Copernicus' effort to persuade Paul III, Tolosani wrote a detailed geocentric treatise against Copernicus in 1546, which he dedicated to Paul III and which included an endorsement from Spina. In it Tolosani vehemently rejected Copernicus' universe and declared it an extreme danger to the faith precisely because of its attempt to deliteralize Sacred Scripture.²³⁰ As the 16th century reached the midway point, the staunchest anti-Copernican of the day was the Jesuit Christoph Clavius (d. 1612). He writes in his highly esteemed work:

We conclude, then, in accordance with the common doctrine of the astronomers and the philosophers, that the earth lacks any local motion, either rectilinear or circular, and that the heavens themselves revolve continually round it.... Holy Scripture is also in favor of this doctrine, stating in a great number of places that the earth is stationary. It also bears witness to the fact that the sun and the other heavenly bodies are in motion.²³¹

Fr. Robinson: With regard to b, the Catholic Church allows arguments of human reason to sway her interpretation of the Bible. The reason for this is that she jealously defends both faith and reason. And so, once there was solid empirical evidence that geocentrism was false—the most solid evidence did not come until the 19th century, long after the Galileo case—the Church was quite happy to accept that the Bible does not teach

²³⁰ The work's title is: *On the Highest Immobile Heaven and the Lowest Stable Earth, and All Other Movable Heavens and Intermediate Elements*. Tolsani insisted Copernicus' teaching "could easily provoke discord between Catholic commentators on Holy Scripture and those who have resolutely decided to follow this false opinion. It is in order to avoid such scandal that we have written this short work" (English translation of the French translation *Aux origins*, p. 708, cited in *The Church and Galileo*, pp. 15-16).

²³¹ *In Sphaeram Ioannis de Sacro Bosco Commentarius*, Rome 1570, pp. 247-248, cited in *The Church and Galileo*, p. 18, 31. Clavius uses Psalms 19:5-6; 104:5 and Ecclesiastes 1:4-6 for his main support. See also: James Lattis' *Between Copernicus and Galileo: Christoph Clavius and the Collapse of Ptolemaic Cosmology*, University of Chicago Press, 1994.

geocentrism, the conclusion that Galileo had wanted to force on the Church prematurely.

R. Sungenis: This is more of Fr. Robinson's distortion of history from his own "worldview." First, it appears Fr. Robinson is teaching that reason can change dogmatic teachings of the Catholic Church. If so, that is false. No amount of "reason" can ever change a Church dogma. If it is infallible when it is made, it will be infallible until the end of time, no matter what our reason says otherwise. This is easily understandable, for in doctrines such as the Eucharist, what amount of "reason" could have ever led to the conclusion that a piece of bread could turn into the body of Christ, and yet not look like the body of Christ? Rather, this belief was given to the Church as the reality, and then the Church later figured out with her reason how it might occur (*e.g.*, transubstantiation). Likewise, what amount of reason could have ever led to the doctrine of baptismal regeneration in which simple water is given the power to provide a cleansed soul and eternal life? Once the doctrine is made, the Church then uses her reasoning to teach the doctrine. This is what should have been done with geocentrism after the Church declared heliocentrism a formal heresy in 1616 and 1633, and it would have been quite easy with the information from science we have today, or the Church could have used the "relativity" argument that Bellarmine used against Foscarini. In retrospect, it took the Church twelve hundred years, at the Fourth Lateran Council, to settle on transubstantiation as the "reasonable" cause for the Eucharist, whereas it would have only taken about two hundred years to show from modern science why geocentrism was scientifically viable.

But what Fr. Robinson is trying to do is just the opposite. He is claiming that reason can totally reverse a doctrinal decision the Church has made—not a modification, mind you, but a total and complete reversal, which means that the previous magisterium that declared the doctrine was in absolute error and was not guided by the Holy Spirit. Sorry, but that has never happened in Church history, and it will never happen in the future. The one who is wrong here is Fr. Robinson, not the historic Church.

Fr. Robinson: And so, once there was solid empirical evidence that geocentrism was false—the most solid evidence did not come until the 19th century, long after the Galileo case—the

Church was quite happy to accept that the Bible does not teach geocentrism, the conclusion that Galileo had wanted to force on the Church prematurely.

R. Sungenis: As we have seen, the supposed “solid evidence” that Fr. Robinson desires to cling to so desperately is stellar parallax, discovered in 1833. But we have shown to him, after he published his book, that his claim is false, but Fr. Robinson refused to admit it. He was also invited to read the literature on stellar parallax, and to do his own investigation and report back to us, but he never did.

As for his statement, “the Church was quite happy to accept that the Bible does not teach geocentrism,” notice how glibly he treats the issue. Two popes over 16 years affirm their Holy Office’s findings that geocentrism is the Bible’s only teaching and that heliocentrism is a formal heresy; that all the Fathers and medieval theologians, in consensus, held to this doctrine; that the Tridentine catechism also taught the same, but Fr. Robinson avoids all these events and makes it appear the Church did nothing to stop heliocentrism. Our three greatest authorities: the Bible, the Church, and the Fathers, Fr. Robinson whisks away with a wave of his hand and brings in another authority to replace them all, the equivocal and unproven theories of modern science. Even then Fr. Robinson shows us his partiality as he picks and chooses from modern science what he will address. For example, he accepts the popular view of stellar parallax, but he won’t accept the Neo-Tychonic view which has the sun and stars revolving on a 1AU pivot around the Earth and from which we can see the same stellar parallax as in the heliocentric system.

Furthermore, what official statement from the Church says “the Church was quite happy to accept that the Bible does not teach geocentrism”? More simply, where has the Church ever officially declared that “the Bible does not teach geocentrism”? The answer is, never once did she do so in any official sense. The most the Church did was grant an imprimatur to Canon Settele in 1821 for his book on heliocentrism; and take Galileo off the Index in 1835, but neither imprimaturs nor Indexes are official doctrinal proclamations of the Church, since both can be changed or reversed quite easily, besides the fact that, as we noted in a previous footnote, Cardinal Maurice Olivieri bald-faced lied to the weak and sickly

Pope VII in order to get the imprimatur approved (*i.e.*, that the 1616-1633 magisterium condemned only Galileo's *version* of heliocentrism, not heliocentrism in itself), as he went over the head of the only person who was permitted canonically to grant imprimaturs, namely, Fr. Filippo Anfossi; while his colleague in crime in the lie, Cardinal Cappellari, became Gregory XVI and had Galileo's name removed from the *Index* without any explanation whatsoever. So much for an unadulterated history.

Moreover, most liberal theologians who don't believe in geocentrism don't take the same stand as Fr. Robinson. They admit the Bible teaches geocentrism (since the Bible never says the Earth moves but always says the sun moves), but add that they simply don't believe the Bible is inspired and inerrant when it teaches on anything outside of salvation. This was the very apologetic that was offered in the speech of John Paul II to the Pontifical Academy of Science in 1992, a speech written for him by Fr. Paul Poupard, another liberal who has dismissed full biblical inerrancy.

These liberal theologians propounded this shameful view of Scripture from their own and unofficial interpretation of Vatican II's *Dei Verbum* 11, in which the single phrase, "for the sake of our salvation,"²³² was distorted to mean that only Scripture regarding salvation is inspired and inerrant, and the rest of the Bible can be, and often is, in error. The Church has never

²³² *Dei Verbum* 11: "The divinely revealed realities, which are contained and presented in the text of sacred Scripture, have been written down under the inspiration of the Holy Spirit. For Holy Mother Church relying on the faith of the apostolic age, accepts as sacred and canonical the books of the Old and the New Testaments, whole and entire, with all their parts, on the grounds that, written under the inspiration of the Holy Spirit (*cf.* Jn 20:31; 2Tim. 3:16; 2 Pet. 1:19-21; 3:15-16), they have God as their author, and have been handed on as such to the Church herself. To compose the sacred books, God chose certain men who, all the while he employed them in this task, made full use of their powers and faculties so that, though he acted in them and by them, it was as true authors that they consigned to writing whatever he wanted written, and no more. Since, therefore, all that the inspired authors, or sacred writers, affirm should be regarded as affirmed by the Holy Spirit, we must acknowledge that the books of Scripture, firmly, faithfully and without error, teach that truth which God, for the sake of our salvation, wished to see confided to the Sacred Scriptures. Thus 'all Scripture is inspired by God, and profitable for teaching, for reproof, for correction and for training in righteousness, so that the man of God may be complete, equipped for every good work' (2 Tim. 3:16-17, Gk text)." (Flannery edition, pp. 756-757).

sanctioned, much less taught such a devilish doctrine, but the liberals forced it into the popular interpretation, and now it is practically the only teaching permitted in Catholic seminaries and universities. One popular liberal during and after Vatican II was Fr. Edouard Schillebeeckx, a Dutch Dominican. He is remembered for his stark words about what he and his colleagues were going to do with Vatican II's ambiguous documents:

We have used ambiguous phrases during the Council and we know how we will interpret them afterwards.²³³

As noted by archbishop Lefebvre (the founder of the SSPX of which Fr. Robinson is a priest):

The Catholic liberals have undoubtedly established a revolutionary situation. Here is what we read in the book written by one of them, Monsignor Prelot a senator for the Doubs region of France. "We had struggled for a century and a half to bring our opinions to prevail within the Church and had not succeeded. Finally, there came Vatican II and we triumphed. From then on the propositions and principles of liberal catholicism have been definitively and officially accepted by Holy Church."²³⁴

But do not imagine that, adopting this attitude, they have an unlimited respect for the inspired text. They even dispute that it is inspired in its entirety: "What is there in the Gospel which is inspired? Only the truths that are necessary for our salvation." In consequence, the miracles, the accounts of the Holy Childhood, the actions and conduct of Our Lord are relegated to the category of more or less legendary biography. We fought in the Council over that phrase: "Only the truths necessary for salvation." There were some bishops in favour of reducing the historical authenticity of the Gospels, which shows the extent to which the clergy is corrupted by neoModernism. Catholics should not allow themselves to be imposed upon: the whole of the Gospel is inspired and those who wrote it had the Holy Spirit guiding their intelligence, so that the whole of it is the Word of God, Verbum Dei. It is not permissible to pick and choose and to say today: "We will take this part but we don't

²³³ Archbishop Marcel Lefebvre, *Open Letter to Confused Catholics*, translated by Fr. M. Crowdy, p.111, 1986.

²³⁴ *Ibid.*, p. 106.

want that part.” To choose is to be a heretic, according to the Greek derivation of that word.²³⁵

In reality, the phrase “for the sake of our salvation” was put in *Dei Verbum* to show Catholics that all of Scripture is inspired and inerrant, so that they would have a sure guide for their very salvation. So why did the liberals change it? Because most of them believed in evolution and long-ages (similar to Fr. Robinson), and they wanted to be able to teach it, but they couldn’t do so if *all of the Bible* was inspired and inerrant, since the Bible teaches a short-age, geocentric and non-evolutionary history.

Fr. Robinson: At that point, it was clear to Catholics that they should no longer try to force a literal interpretation on passages of the Bible that speak of the earth being fixed and unmoving.

R. Sungenis: So there you have it: Fr. Robinson’s admission to how he arrives at his long-ages. Just stop interpreting the Bible literally, and viola! you have the pretext for long-ages. This means he knows the Bible teaches geocentrism and short-ages, but he deliberately avoids them by employing a non-literal interpretation. That admission came right from the horse’s mouth.

But notice how Fr. Robinson’s solution is different than what the liberals and the 1992 Galileo speech said. Essentially, there are two excuses used for dismissing the Bible’s historical teachings. The first is that Catholics no longer have to read the Bible literally because science tells us evolution and heliocentrism are true. This was popular in the late 1800s and just prior to Vatican II, at least among the liberal and modernist Catholic theologians.

But this tactic changed in the second half of the 20th century since other theologians recognized that the whole hermeneutic of historic Catholic exegesis was based on a literal interpretation of a *totally* inspired and inerrant Bible. As such, they understood they could not say literal interpretation is no long required. So, instead of saying we shouldn’t read the Bible literally, they said we could read the Bible literally all we want, but in the end it doesn’t matter because none of the historical passages of

²³⁵ *Ibid.*, p. 132.

the Bible are, in fact, inspired and inerrant. In their view, only the passages that speak about salvation are inspired and inerrant, and those we also interpret literally, but only they have authority for us because they are the only passages that are inspired and inerrant. In this way, they give the appearance of following tradition because they maintain a literal interpretation of the “Bible.”

But, of course, they fail here, too, since the traditional Church never taught the Bible was not inspired and inerrant in its historical passages. This is precisely why Cardinal Bellarmine and the two popes, Paul V and Urban VIII, maintained their stance that geocentrism—a teaching from the history of the Bible—was Church doctrine, and that if you disbelieved it you were a heretic. Unlike today’s Catholic heretics who have denounced most of the Bible as man-made history, our forefathers, and the Church Fathers before them, all believed the Bible was inspired and inerrant in every propositional truth it gave us, in both history and salvation. But the liberals got away with their ploy because they convinced everyone that their new teaching came right from Vatican II. We know, of course, they accomplished this deceitful tact by twisting what Vatican II’s *Dei Verbum* actually said, as well as the Catholic doctrine on inspiration and inerrancy.²³⁶

²³⁶ **Pius IX**, condemned the following notion: “The prophecies and miracles set forth and recorded in the Sacred Scriptures are the fiction of poets, and the mysteries of the Christian faith the result of philosophical investigations. In the books of the Old and the New Testament there are contained mythical inventions...” (*Syllabus of Errors*); **Pope Leo XIII**: “It is absolutely wrong and forbidden either to narrow inspiration to certain parts only of Sacred Scripture or to admit that the sacred writer has erred.” (*Providentissimus Deus*); **Pope Pius X**, condemned the notion: “Divine inspiration does not extend to all of Sacred Scriptures so that it renders its parts, each and every one, free from every error.” (*Lamentabili Sani*); **Pope Benedict XV**: “...the divine inspiration extends to all parts of Scripture without distinction, and that no error could occur in the inspired text.” (*Spiritus Paraclitus*); **Pope Pius XII**, repeats Leo XIII decree: “It is absolutely wrong and forbidden either to narrow inspiration to certain parts only of Sacred Scripture or to admit that the sacred writer has erred.” (*Divino Afflante Spiritu*); **Pope Pius XII**, condemns the notion: “...immunity from error extends only to those parts of the Bible that treat of God or of moral and religious matters.” (*Humani Generis*); **1964 Pontifical Biblical Commission**: “...that the Gospels were written under the inspiration of the Holy Spirit, who preserved their

Fr. Robinson: To argue geocentrism on the basis of the Bible today is, then, contrary to the Catholic spirit in reading the Bible.

authors from every error.”; **1998 Congregation for the Doctrine of the Faith:** “...the absence of error in the inspired sacred texts...” (*Professio Fidei*); **Pope Leo XIII:** “For the sacred Scripture is not like other books. Dictated by the Holy Spirit, it contains things of the deepest importance, which, in many instances, are most difficult and obscure....For all the books in their entirety...with all their parts, have been written under the dictation of the Holy Spirit.” (*Providentissimus Deus*); **Council of Trent:** “...the purity itself of the Gospel is preserved in the Church, which promised before through the Prophets in the Holy Scriptures...and [the Synod] clearly perceiving that this truth and instruction are contained in the written books and in the unwritten traditions, which have been received by the apostles from the mouth of Christ Himself, or from the apostles themselves, at the dictation of the Holy Spirit, have come down even to us, transmitted as it were from hand to hand, [the Synod] following the examples of the orthodox Fathers, receives and holds in veneration with an equal affection of piety and reverence all the books both of the Old and of the New Testament, since one God is the author of both, and also the traditions themselves, those that appertain both to faith and to morals, as having been dictated either by Christ’s own word of mouth, or by the Holy Spirit, and preserved in the Catholic Church by a continuous succession.” (*Denz.*, 783); **Vatican Council I:** “If anyone shall not accept the entire books of Sacred Scripture with all their divisions, just as the sacred Synod of Trent has enumerated them, as canonical and sacred, or denies that they have been inspired by God: let him be anathema.”; **1994 Catechism of the Catholic Church:** “Sacred Scripture is the speech of God as it is put down in writing under the breath of the Holy Spirit.” “God inspired the human authors of the sacred books...it was as true authors that they consigned to writing whatever he wanted written, and no more.” (¶¶ 81, 106); **Pope Leo XIII:** “It is futile to argue that the Holy Spirit took human beings as his instruments in writing, implying that some error could slip in...For by his supernatural power he so stimulated and moved them to write, and so assisted them while they were writing, that they properly conceived in their mind, wished to write down faithfully, and expressed aptly with infallible truth all those things, and only those things, which He himself ordered; otherwise He could not Himself be the author of the whole of Sacred Scripture.” (*Providentissimus Deus*); **Code of Canon Law (1983):** “Even after ordination to the priesthood, clerics are to pursue sacred studies and are to strive after that solid doctrine founded in sacred scripture, handed on by their predecessors, and commonly accepted by the Church, as set out especially in the documents of councils and of the Roman Pontiffs. They are to avoid profane novelties and pseudo-science. (Canon 279.1)

R. Sungenis: As noted above, the only one here who is “contrary to the Catholic spirit in reading the Bible” is Fr. Paul Robinson. The “spirit” leading him and the rest in this total reversal of biblical exegesis is not of God.

February Questions

Question: Can an argument be made from theology for a young age of the human race?

Fr. Robinson: Answer: Chapter 3 of *The Realist Guide* covers the way that religions argue their dogmas. The main point is that theological arguments are essentially arguments of authority. This does not mean, however, that they are not based on reason. On the contrary, it is the duty of the branch of theology called apologetics to establish the reasonableness of the authorities being invoked.

So, if you wanted to argue a proposition like “The human race started no later than 10,000 years ago” as being part of the Catholic faith, you would try to build a case from the following authorities:

Sacred Scripture

The writings of the Fathers

Documents of the Magisterium

In addition, you would make an argument of reason, but, in the theological argument, the argument from reason alone would not hold as much weight as the arguments of authority.

According to the strength of the argument of authority, theologians give a grade of certainty to the conclusion being drawn. That grade can vary from a mere theological opinion (lowest) to a dogma of divine and Catholic faith (highest). In the case of the proposition mentioned above, I believe it would fall into the category of a theological opinion.

R. Sungenis: Isn't it ironic that Fr. Robinson says the three authorities a person needs to establish a doctrine are: (1) Sacred Scripture, (2) the Fathers and (3) the Magisterium, yet he is the very one who ignores all three when it comes to geocentrism? Scripture teaches in about a dozen places the Earth is fixed and the sun moves. All the Fathers of the Church

were in consensus the Bible taught geocentrism and that it is true. The Magisterium of the Church, in the 1566 Tridentine catechism and under two popes in 1616 and 1633, made geocentrism universal doctrine and designated its official opponents “heretics.” All this stares him in the face but Fr. Robinson doesn’t even give the possibility, much less the authoritative teaching from his own three authorities, the time of day. What a total hypocrisy. The real truth is that it is Fr. Robinson’s “reason,” whatever he conceives it to be, which is his ultimate authority.

He does the same thing, of course, when it comes to the Bible’s genealogies and chronology. Although Scripture reads like a veritable newspaper when it gives these genealogies and chronologies, and verifies them by reiterating them in other portions of Scripture outside Genesis; and although every one of the Fathers interpreted these genealogies and chronologies literally; and although the Church has never officially taught these genealogies and chronologies can be interpreted non-literally, Fr. Robinson bypasses them all and concludes that anything less than 10,000 years is just “theological opinion.” But there is one thing we know for sure in the face of all these authorities: Fr. Robinson’s assessment of them is just a “theological opinion,” and a very dubious one at that.

Question: If God could have created the world as explained in the Scriptures, why would he use the Big Bang? Wouldn't that mean that God was trying to hide the way He created things? It could seem that this wouldn't make sense, especially since this way of Creation is much more likely to give impression that the Earth is accidental than the literal Creation?

Fr. Robinson: Answer: In my view, things are exactly the opposite of the way that you portray them. If God created everything fully formed, as described in Genesis, then, based on what we know about planets and stars, they would have the appearance of having been formed over millions of years, but the Bible would be telling us that they were formed in an instant. In other words, the reality that God has created would be telling us one thing and the Bible would be telling us another.

R. Sungenis: Once again, we see Fr. Robinson twisting things. He confuses the natural development of the stars and planets with the idea that this development would somehow be contradicted if God made the first

planets and stars in their whole substance. That notion is totally false. Since material objects can neither create or form themselves into functioning objects without divine fiat, it only makes sense that God had to do so to form the first of them, but also built into each of them the ability to develop in their respective environments. This is also what we believe occurs in macro-evolution or adaptation, that is, God built into the human race the ability to develop and change in order to accommodate itself to the environment, but excluding change from one species to another.

Fr. Robinson: That is, in fact, the Protestant position, as I explain in chapter 7 of *The Realist Guide*.

R. Sungenis: Many times the Protestants have more common sense than Fr. Robinson. As they start with trusting the historical portions of Scripture and don't make up excuses that Scripture is either uninspired and non-inerrant when they don't like what they read, nor do they relieve themselves of literal interpretation of those same historical passages. Of course, the problem with the Protestants is, like Fr. Robinson, they pick and choose which passages they will interpret literally, which is why they don't interpret the Bible literally on things like the Eucharist and Baptism, but do so when they come to Genesis. We as Catholics should know better, that is, we interpret all of Scripture literally unless it is impossible to do so. And I can guarantee you that Fr. Robinson's view of radiometry and sedimentology is no reason not to interpret the Bible literally, since, as we will see, mainstream science's view of both is completely biased.

Fr. Robinson: Their idea of God is that He wanted to deceive our minds by creating a world in an instant that appears to have developed over long periods of time. Why would He do this? In order to convince us that the reason that He has given us is useless! I would argue that this is not the God that we worship as Catholics and not really a God that anyone would want to worship.

R. Sungenis: Fr. Robinson has a warped understanding of the Protestant interpretation of Genesis. The conservative Protestants don't believe God has deceived us because they don't believe the universe shows itself as old. It shows itself as young. It is Fr. Robinson who has it backwards, and that is because he has put his total faith in mainstream radiometry and refuses to consider the short-age interpretation of the same data.

Fr. Robinson: As for your last question above, no, a divinely-commenced Big Bang, far from making the development of the Earth seem accidental, rather makes it seem extremely carefully choreographed. Look up “fine-tuning of the universe” and you will see what I am talking about. Or read chapter 9 of my book.

R. Sungenis: Fine-tuning has nothing to do with the Big Bang. We understood the necessity of fine-tuning long before the Big Bang became popular. The very fact that the Big Bangers must keep adding fudge factors to their “fine-tuning” (e.g., inflation, dark energy, dark matter, superluminal c at the edges, varying Hubble constants, *etc.*) shows that they can’t answer the fine-tuning they observe. In other words, the fine-tuning we see is an enigma to the Big Banger, since his Big Bang universe doesn’t follow the dictates of the fine-tuning. Fine-tuning is what God used to create the universe, by instantaneous divine fiat, which means he built into each non-organic and organic object the necessary balance needed between all of nature’s laws. In his book, Fr. Robinson says the following about the “fine-tuning”:

Fr. Robinson: It turns out that all of the dials would have to be vary precisely set for the universe to attain a state where it could be inhabited by humans. Take as an example the cosmological constant, which determines the rate at which the universe expands....The Cosmological Constant refers to the balance of the attractive force of gravity with a hypothesized repulsive force of space observable only at very large size scales. It must be very close to zero, that is, these two forces must be nearly perfectly balanced. To get the right balance, the cosmological constant must be fine-tuned to something like 1 part in 10^{120} . If it were just slightly more positive, the universe would fly apart; slightly negative, and the universe would collapse. There are at least 22 such values that must be most precisely configured for a universe starting from a Big Bang to be able to support complex life (pp. 372-374).

R. Sungenis: This is another instance in which Fr. Robinson’s biased worldview gets in the way of the facts. He implies above that modern science has achieved its “ 10^{120} ” balance between gravity and energy it needs for its “Cosmological Constant.” The fact is, they haven’t; not even close. As Michio Kaku said in our movie, *The Principle*:

There is a crisis in cosmology. Usually in science, if we are off by a factor of two or a factor of three, we would call that horrible. We say, 'something is wrong with the theory; we are off by a factor of ten.' However, in cosmology, we're off by a factor of 10^{120} . That is 1 with 120 zeros after it. This is the largest mismatch between theory and experiment in the history of science.²³⁷

To arrive at the zero energy "balance" between energy and gravity, our universe has only 4% of the needed matter. If they use Friedmann's equations, a "flat" universe requires the "critical density" of the universe must be equal to the average density. But even adding in 23% Dark Matter and 4% normal matter, this leaves 73% positive energy still required to counterbalance gravity.

Yet another problem was the time needed for the formation of stars and galaxies. Under present calculations it appeared that the age of the universe was younger than the age of its oldest stars! NASA describes the dilemma and the proposed solution:

Many cosmologists advocate reviving [Einstein's] cosmological constant term on theoretical grounds, as a way to explain the rate of expansion of the universe....The main attraction of the cosmological constant term is that it significantly improves the agreement between theory and observation....For example, if the cosmological constant today comprises most of the energy density of the universe, then the extrapolated age of the universe is much larger than it would be without

²³⁷ See: https://www.youtube.com/watch?v=olo_z6yZjbg. As Kaku has said elsewhere: "No one at the present time has any understanding of where this 'energy of nothing' comes from...If we take the latest theory of subatomic particles and try to compute the value of this dark energy, we find a number that is off by 10^{120} ." (Michio Kaku, *Parallel Worlds*, p. 12). The actual number is 1.38×10^{123} . But this is only after any energy greater than the Planck scale is excluded. According to Sean Carroll at California Technical Institute: "You can add up all the effects of these virtual particles....and you get infinity....So we cut things off by saying we will exclude contributions of virtual particles whose energy is larger than the Planck scale...which we have no right to think we understand what's going on...Then you get a finite answer for the vacuum, an answer that is bigger than what you observe by a factor of 10 to the 120th power." (<https://www.youtube.com/watch?v=SwyTaSt0XxE> &feature=watch-vrec). This is one of the reasons Carroll runs the website titled: "The Preposterous Universe" at <http://preposterousuniverse.com>.

such a term, which helps avoid the dilemma that the extrapolated age of the universe is younger than some of the oldest stars we observe!²³⁸

So, if he has no energy source for the accelerating universe and is missing more than two-thirds of the needed “critical density” for a flat universe, then he should abandon the Big Bang theory and perhaps start reading Genesis 1 with a little more open-mindedness. But he will have none of that. So he does the same thing with this problem that he did with the spiral galaxies that are spinning too fast to fit Newton’s and Einstein’s laws of motion – he simply invents the energy he needs. This time it is called Dark Energy, but he can’t see, hear, feel, taste or smell it. And how much does he need? According to the equations, about 73% of the universe must be composed of Dark Energy to make the Big Bang conform to *1a* supernovae requirements. This invention then allows the universe to be 13.7 billion years old (so that it is older than the stars) and give enough energy to reach the needed “critical density.”

The proponents of this convenient manipulation of data seem oblivious to their ploys. But George Ellis (also in our movie, *The Principle*) is not ashamed to admit the whole thing is based on wishing or presuming that the Copernican Principle is true:

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....The further issue that arises is that while some form of averaging process is in principle what one should do to arrive at the large-scale geometry of the universe on the basis of observations, in practice what is normally done is the inverse. One assumes a priori a FLRW model as a background model, and then uses some form of

²³⁸ “Dark Energy: A Cosmological Constant?” http://map.gsfc.nasa.gov/universe/uni_matter.html

observationally-based fitting process to determine its basic parameters.²³⁹

As Kaku's admits that modern theory is "off by 10^{120} ," he is referring to the discovery by Russian physicist Yakov Zel'dovich, and later established in quantum electrodynamics or quantum field theory that empty space has an energy of 10^{120} more than the Dark Energy needed to propel the proposed "accelerating expansion of the universe." The 10^{120} excess energy is the only source available but it cannot be cut up into pieces. It is all or nothing. This is precisely why Big Bang advocates invented "Dark Energy" – a hoped for source of energy that is more than the miniscule energy created by baryonic matter but way less than the 10^{120} excess energy given by quantum theory.

Here is an even bigger problem. Since Big Bang cosmologists believe space contains 10^{120} more energy than what we have detected; and since Einstein's General Theory of Relativity requires that all forms of energy (even the 10^{120}) function as a source of gravity; and since Einstein's equations require that the "curvature" of the universe depends on its energy content, then, since the energy content is 10^{120} more than what Einstein proposed, the whole universe should presently be curled up into a space smaller than the dot on this i. Obviously it isn't. As we can see, the Big Bang universe simply does not work under present empirical evidence.

Noted physicist Paul Steinhardt of Princeton has gone on record against the present Big Bang theory. He opts for what can best be called the Big Brane theory. In a recent lecture, Steinhardt says the following of the Big Bang:

So, the first point I want to make about the Big Bang model is that the Big Bang model of 2011...that model I just described, definitely fails....We have to fix the Big Bang model, we have to add things to it to make it work.²⁴⁰

²³⁹ "Inhomogeneity effects in Cosmology," George F. R. Ellis, March 14, 2011, University of Cape Town, pp. 19, 5; <http://arxiv.org/pdf/1103.2335.pdf>.

²⁴⁰ <http://www.youtube.com/watch?v=IcxptIJS7kQ>.

Indeed, things like Inflation, Dark Matter, Dark Energy, Lambda values and Hubble “constants” of which the only thing constant is that they are constantly being changed to accommodate the next fudge factor that will prop up the Big Bang. Along these lines, Richard Lieu submitted a scathing critique of the Λ CDM [Big Bang] model in a 2007 paper:

...Cosmology is not even astrophysics: all the principal assumptions in this field are unverified (or unverifiable) in the laboratory, and researchers are quite comfortable with inventing unknowns to explain the unknown. How then could, after fifty years of failed attempts in finding dark matter, the fields of dark matter and now, dark energy have become such lofty priorities in astronomy funding, to the detriment of all other branches of astronomy?... Λ CDM cosmology has been propped by a paralyzing amount of propaganda which suppress counter evidence and subdue competing models....I believe astronomy is no longer heading towards a healthy future....Charging under the banner of Einstein’s extreme eminence and his forbidding theory of General Relativity, have cosmologists been over-exercising our privileges?...Could this be a sign of a person (or camp of people in prestigious institutes) who become angry because they are embarrassed?²⁴¹

In 2006 NASA organized the Dark Energy Task Force in order to bring the problems to the fore and to seek for some answers. Answer, however, were hard to come by. If anything, the Task Force realized how little modern science knows about the universe, much less how it is going to fit its theories into the anomalous evidence it sees. In the first pages of the 80-page report, the summation of the Task Force’s findings are quite revealing. They are as follows:

- “Dark energy appears to be the dominant component of the physical Universe, yet there is no persuasive theoretical explanation.”

²⁴¹ “ Λ CDM cosmology: how much suppression of credible evidence, and does the model really lead its competitors, using all evidence,” Richard Lieu, Dept. of Physics, Univ. of Alabama, May 17, 2007. Although Lieu presents equally flawed models due to the fact that all cosmologists are searching in vain for how the universe started and develops, he candidly admits “Perhaps all models are equally poor” (p. 12).

- “The acceleration of the Universe is, along with dark matter, the observed phenomenon which most directly demonstrates that our fundamental theories of particles and gravity are either incorrect or incomplete.”
- “Most experts believe that nothing short of a revolution in our understanding of fundamental physics will be required to achieve a full understanding of the cosmic acceleration.”
- “For these reasons, the nature of dark energy ranks among the very most compelling of all outstanding problems in physical science.”
- “These circumstances demand an ambitious observational program to determine the dark energy properties as well as possible.”²⁴²

In other words, modern cosmology doesn't know what the blazes it is doing today. It is at a total loss to explain the universe, more so than it was a hundred years ago. And whereas General Relativity was considered the solution to cosmology's major problems in the 1920s, the Task Force concludes: “Possibility: GR or standard cosmological model incorrect.”²⁴³ So back to the drawing board they go. Yet this is the “science” on which Fr. Robinson stakes his book and his reputation; and chides the faithful expositor of Genesis 1.

Question: Have you heard about Mr. Robert Sungenis? He is a Catholic who holds Geocentric position. He offers (or at least used to offer) prize of several thousand for anyone who would prove the Heliocentric system to him. If the Heliocentric system is proven, wouldn't anyone who knows about science win the award?

Fr. Robinson: Answer: I criticize the theories of Robert Sungenis in chapter 7 of my book. First criticism: those theories do not interpret the Bible as a Catholic. According to them, geocentrism is a theological question; in the mind of the Church, it is purely a scientific question.

R. Sungenis: And we have seen from my detailed accounts of the Church's dealing with geocentrism, this means Fr. Robinson's assessment

²⁴² Dark Energy Task Force, 2006, at http://science.energy.gov/~media/hep/pdf/files/pdfs/kolb_hepap_07_06.pdf. Page 53 of the report reveals how much the Task Force estimates they will need to do further investigation into the mystery of Dark Energy – “2.4 billion dollars.”

²⁴³ *Ibid.*, p. 7.

is a total falsehood. The very fact that the Church condemned Galileo and heliocentrism as a “formal heresy” (NB: not a “material heresy”) shows that the Church understood geocentrism first as a theological issue. In order to condemn Galileo as “vehemently suspect of heresy” means the Church must have already defined and declared heliocentrism as a heresy, otherwise the Church could not have convicted Galileo of the heresy. Fr. Robinson is oblivious to all this because he has never studied the history, or, even worse, rejected it all for his own “worldview.”

Fr. Robinson: Second criticism: his theories take no fair account of the very solid empirical evidence available in support of heliocentrism.

R. Sungenis: This accusation is, of course, totally false, and I wonder how a priest of the Catholic Church, sworn to tell the truth, could even suggest such a thing. I know and have written about every piece of evidence seeking to establish that heliocentrism is the reality, and I’ve done it dozens of times in books, articles, movies and lectures for the last fifteen years. In fact, I’ve often noted heliocentrism might even be possible, and my resulting complaint is the heliocentrists are the ones who try to dismiss geocentrism when they know, in fact, the laws of science allow it. But Fr. Robinson can’t even reason hard and long enough to see that even Einstein allowed geocentrism in his General Relativity Theory, when every scientist with whom I’ve ever spoken knows General Relativity admits geocentrism is a viable scientific option. I earlier quoted from Snelgar, which I also sent to Fr. Robinson without an acknowledgement. Snelgar said this:

If we take the neo-Tychonic model, it is actually simpler and more elegant than the current standard model. The other planets orbit the Sun as per modern observations, but the Sun orbits the center of mass of the universe, which is the Earth.

This is observationally identical to the standard model but philosophically unwelcome.

Mathematically it is more elegant because it does away with cosmic inflation, the Lorentz contraction, etc. which

were designed with the specific goal of avoiding an egocentric model.

Fr. Robinson: Thus, for instance, he did not give Ken Cole the \$1000 that he promised when Ken Cole refuted his position.

R. Sungenis: Again, as we saw earlier, this is Fr. Robinson's twisted view of the facts. I didn't "promise" Ken Cole that just for showing up he was going to receive \$1000. I promised Ken Cole, and he accepted my stipulation, that I would be the sole judge of whether he disproved geocentrism. In my honest opinion, Ken Cole didn't even come close, and that is because he made the same amateurish mistakes that Fr. Robinson does—thinking that the old proofs are still valid. Face it, do you think a physicist, such as Snelgar above, could honestly say that geocentrism is not only viable but is actually a more elegant mechanical system than heliocentrism if it weren't true, especially since he still prefers heliocentrism? Besides Snelgar, I've given Fr. Robinson reams of quotes from famous scientists who admit that geocentrism is a viable scientific model. Ken Cole tried to concentrate on Newton, but Newton's mechanics are flawed since he tried to confine his mechanics to a closed solar system, and modern science has discovered that such a system is not only artificial, it can't even prove heliocentrism from its own mechanics. It cannot explain either the origin of gravity or inertia. It cannot deal with accelerated systems without adding in, by hand, the inertial forces (centrifugal and Coriolis), but its original equations do not take those forces into account. Its gravity equation is contradicted by its centrifugal equation since the mass must cancel from both sides, leaving a gravity equation that eliminates the smaller mass. Its force equation cannot explain the rotation curve of spiral galaxies or the perihelion of Mercury.

The only system that really works is a rotating universe since it will create the needed inertial forces that keep the stars in constant orbital motion around the universe's central axis. And since this system has no limit for the speed of light, gravity or inertial forces, it is not hampered by the limits of a non-rotating system. If you don't believe me, then I suggest you consult Einstein and any other modern physicist today who understands the general principle of relativity and refers to its mechanics as "post-Newtonian."

Fr. Robinson: Third criticism: if his work were properly scientific, it would take empirical evidence and show how it supports geocentrism. Rather, he a) pokes holes in modern scientific theory; b) proposes that the geocentric model is plausible without providing real data to prove that the earth is actually at the center of the universe. For more information, please visit *Geocentrism Debunked*.

R. Sungenis: For the record, in March 2018, Fr. Robinson did not have the reference to *Geocentrism Debunked* on his website. He must have added it recently, which also means he deliberately let stand his false accusation against me concerning the Ken Cole case. I will treat Fr. Robinson accordingly. Let me say up front, that the website he refers to is written by David Palm, but his efforts have been refuted at our website: www.galileowaswrong.com and www.theprinciplemovie.com. Unlike Ken Cole, at least Palm recognizes that ever since Einstein, there is no disproof for geocentrism, which is why Palm now tries to claim that geocentrism is the more “complicated” of the two systems, but which has also been refuted since, as Snelgar admits, it is geocentrism which is the simpler since it doesn’t have to add fudge factors like the unproven Lorentz contraction and cosmic inflation, amid a lot of other *ad hoc* factors.

As for Fr. Robinson’s other accusations, I have dealt with them at length in the body of this book. Suffice it to say, I’ve provided reams of “real data” to show the Earth is actually in the center of the universe, and, ironically, most of that evidence comes from the secular scientists of the world, as one can easily see who has watched our movies, *The Principle* and *Journey to the Center of the Universe*, or who has read any of my books on the subject. Not only do we show why heliocentrism won’t work, we also present a geocentric model that includes both the geometry and the dynamic forces involved. Fr. Robinson, unfortunately, appears to live in his own *Alice in Wonderland* world where none of the evidence is really evidence.

Question: Does your position on scientific questions represent the position of Society of St. Pius X?

Fr. Robinson: Answer: The SSPX does not hold official positions on science. The SSPX is a Catholic organization that holds to all of the teachings of the Catholic Church, full stop. But the Catholic Church

has never mandated that Catholics hold to geocentrism or heliocentrism, or that they hold to the Big Bang Theory or any other theory.

R. Sungenis: One could only conclude so if he erases all the time in Catholic history from 1540 to 1644 in which Copernicus was rebuked by the magisterium; his book put on the Index; his colleague Reticus was also put on the Index; the magisterium condemned Fr. Foscarini's book on heliocentrism; an injunction was given to Galileo by Paul V never to address the subject of heliocentrism again after 1616; the condemnation of both Galileo as "vehemently suspect of heresy" and the condemnation of heliocentrism as a "formal heresy" was given by Urban VIII in 1633. The problem for Fr. Robinson, and the SSPX at large is, they all claim to be traditionalists, holding to the traditional doctrines of the Church against the modernists and liberals of the 19th and 20th centuries who ignore the tradition. But when that very tradition shows the SSPX that heliocentrism was condemned as a "formal heresy," this is where they draw the line. In effect, they are very similar to the modernists and liberals of our day. They pick and choose what they are going to accept from tradition, as well as what they are going to accept from the Bible.

Fr. Robinson: What I do in my book is try to indicate to Catholics what questions are theological and what questions are scientific.

R. Sungenis: We saw how Fr. Robinson totally botched this question when he tried to claim the controversy between Galileo and the Church was "not a theological issue," when, in fact, a theological issue is *all* the Church treated it as. The only thing one could conclude from this fact is that Fr. Robinson is desperate to avoid the truth in order to advance his own theory of the world.

Fr. Robinson: Then, on the scientific questions, I try to indicate what opinions correspond to realism and which do not. Heliocentrism and the Big Bang Theory (which allows for God and even points to God) correspond to realism and so a proper prudential intellectual judgment. Neo-Darwinian evolution, in large part, does not correspond to realism.

R. Sungenis: As we have seen earlier, Fr. Robinson's "realism" is really his own subjective judgment as to what is real. His "Robinson meter" ends

up as merely a commercialized way of promoting his own opinions about the universe and how it should run.

Question: What do you think of the position of the Kolbe Center on the Bible and science?

Fr. Robinson: Answer: While I respect the good will of those at the Kolbe Center, I cannot but remark that they adopt the fundamentalist Protestant stance on the relation between the Bible and science. As I explain in great detail in chapter 7 of *The Realist Guide*, that exegetical stance has several terrible effects:

R. Sungenis: The audacity of this man is amazing to watch. Here we have the “guilt by association” tactic so common in Catholic liberalism. Since he doesn’t want to admit that a very “fundamentalist” approach to Scripture was advocated by the Church Fathers and the medievals and defended by the 17th century magisterium (a period of history he totally avoids), the next best boogeyman to create for his purposes is the Protestant interpretation of Genesis.

Fr. Robinson: It makes the Bible out to be an enemy of science.

R. Sungenis: No it doesn’t, not in the least. The Kolbe Center shows how science can be integrated with the Bible, and that comes about when we stop looking at science as some monolithic consensus of belief that always spits out the right answer. Today, there is modern secular science, which is bent on having evolution and long-ages so that it can rid itself of God, and then there is modern realistic science, which uses the same apparatus and the same data but comes to totally different conclusions, all of it showing the Bible agrees whole-heartedly with science, as long as the science is not biased and agenda-driven.

Fr. Robinson: It makes religion out to be an enemy of reason.

R. Sungenis: Only in Fr. Robinson’s warped reasoning.

Fr. Robinson: It makes God out to be an arbitrary ruler of the universe.

R. Sungenis: The only one “arbitrary” in this discussion is Fr. Robinson. He can’t decide whether he is going to follow tradition, so he picks and

chooses based on his personal preferences. Likewise, he can't decide when he is going to interpret the Bible literally. He can't decide when the Fathers were in consensus. He can't decide when the pope's decrees are to be followed or not. Fr. Robinson's world is one of total arbitrariness.

Fr. Robinson: For these reasons, Catholics should adhere to the exegetical principles of the Scriptural encyclicals of Popes Leo XIII, Benedict XV, and Pius XII, which indicate that the Bible is not to be treated as a science book.

R. Sungenis: Such a glib answer to such an important question. First, Popes Leo XIII, Benedict XV and Pius XII, according to the official statements they made on biblical inspiration and inerrancy of the whole Bible, would never have accepted the modern idea that only parts of the Bible are inspired and inerrant. Likewise, all of these popes would have insisted on a literal interpretation of the Bible, unless it was impossible to do so.

Second, everyone knows the Bible is not a "science book." This excuse by Fr. Robinson is nothing but a canard. Yes, the Bible doesn't have equations and data. But who said the Bible had to be a science book to comment truthfully on science? The Bible is our authority in any manner it speaks to us, and if it desires to speak on an area of the cosmos, or geography, or chronology, or whatever, then what it says there is just as inerrant as what it says elsewhere, which is exactly what the Church told Galileo. The Bible no more needs to be a science book to comment on science than the *Declaration of Independence* needs to be a spiritual document in order to state that all men are created equal by their Creator. In reality, the only ones who are pushing either Cardinal Baronius' statement about the Bible not being a science book are those who have an agenda to mix their own science (*e.g.*, long-ages and evolution) with a Bible that doesn't support either one.

Question: Do you no longer believe in the creation story in Genesis?

Answer: I read Genesis in the way that the Catholic Church has directed her children to read it. The Church indicates that Genesis 1 is meant to teach us important dogmas of faith, but is not meant to teach

us science. Here is a summary of what we are held to believe and what we are not held to believe.

R. Sungenis: False. The Catholic Church, from the Fathers onward, taught us to read the Bible at face value; that everything it said occurred and we were to understand it literally. The Church didn't care whether it was science or not. She was concerned only with reading the Bible as the Bible stated things, whether we understood it fully or not, just as the Church believed in the Eucharist but didn't quite understand how it could occur. She believed it because God said it. In time She may or may not come to a better material understanding. This principle is why the Fathers believed the Earth came before the sun; why there were two light sources; why the plants came before the sun; why the firmament was so important to the structure of space, *etc.* They read the word of God at face value, and only then did they try to explain how it all worked together. At no time did they, unlike Jaki and Robinson, decide what they were reading had no physical reality, or its teaching could be modified or disregarded. At no time did they complain Genesis 1 allowed the Earth to come before the stars and then use that objection to interpret Genesis the way they wanted, unlike Jaki who says an Earth before the sun is absurd and then proceeds to rip apart Genesis 1 until there is really nothing left of it, except "God created the world," as we will see below when Fr. Robinson further explicates what we should get out of Genesis 1. As far as Fr. Robinson and his ilk are concerned, the first five days of Genesis 1, and part of the sixth day, are mere window dressing, just story-filler made up by some Jewish scribe coming out of Babylonian captivity, and is totally uninspired and non-inerrant. Imagine. A God who writes things with no meaning and reality. This is the world of Fr. Paul Robinson.

It is only within the last few hundred years, with the rise of Copernicanism and Darwinism, that men began to lose faith in the Bible and try to figure out all kinds of ways they could get around it. The one method that seemed to work was science, at least the science that was being promoted over the science that wasn't being promoted.

Fr. Robinson: What Catholics are held to believe from Genesis 1-3

- There is one God, outside of the universe, who created that universe from nothing, such that it had a beginning in time.
- God created man directly and Eve was formed from Adam.
- Monogenism – the entire human race has a single set of first parents.
- Our first parents were created in a state of original justice, with gifts of integrity and immortality.
- They fell from that state by sin and the wound of their sin was communicated to the entire human race.
- What Catholics are not held to believe from Genesis 1-3
- the universe is a certain age, the Earth is a certain age, the human race is a certain age.
- the universe developed in a certain way.

R. Sungenis: Notice the very things Fr. Robinson doesn't want us to believe from the Bible are the very things the Bible talks about as believable. According to Fr. Robinson, we can't know the universe is a certain age or know how old the Earth is or how many years humans have been on Earth, even though Genesis 1 says the Earth was created on Day One, and there were only six days after until man was created. We can't know how long things have transpired, yet Gn 5, 11; 1Ch 10; Mt 1 and Lk 3, show how many years transpire, to the very day and year, from Adam until the advent of Jesus Christ. This is the "worldview" of Fr. Paul Robinson – a continual denial of the scriptural and patristic record, and all because radiometry, he thinks, tells us the universe is billions of years old.

Fr. Robinson: This is why Cardinal Ruffini, a staunchly orthodox Cardinal at Vatican II, wrote the following in his book *The Theory of Evolution Judged by Reason and Faith*: "God could very well reveal (and who doubts it?) in what order and in what time He made the various things appear in the world; but in His inscrutable wisdom He preferred to leave such questions to human research."

R. Sungenis: I have news for both Cardinal Ruffini and Fr. Robinson. God already told us. The secret is in Genesis 1. They choose not to believe the details of the text because they have been bamboozled by the atheistic claims of modern science, and have failed to investigate the real science. Not only that, but they stand condemned by the very Fathers who, in consensus, threw Ruffini's and Robinson's version of the origin of the world into the fires of gehenna.

CHAPTER 6

A CRITIQUE OF CHAPTERS 7-11 OF: *THE REALIST GUIDE TO RELIGION AND SCIENCE*

I will now analyze parts of Fr. Robinson's book. Some of the topics we have already covered will be covered again, only in more detail.

Fr. Robinson: "Many fundamentalist Protestants hold that God created the universe six thousand years ago, in a period of twenty-four hours each, according to the strict literal sense of the first chapter of Genesis, and for this belief, they are accorded the label 'creationist.' (p. 234).

R. Sungenis: The word "fundamentalist" has been bandied about by liberal Catholics and liberal Protestants for quite some time. It is basically a pejorative label against anyone who interprets the Bible at face value.

It is no surprise that all the "ecumenical" efforts stemming from the 1960s onward have been forged by liberals from both Catholic and Protestant ranks. Those from the conservative branches generally want nothing to do with each other, much less generate "ecumenism."

The liberals from both Catholic and Protestant churches agree on a hermeneutic that dichotomizes Scripture into two opposing categories:

- (1) aspects of Scripture that are *definitely* not inspired by God or inerrant (*e.g.*, history, chronology, science, cosmology, cosmogony, mathematics, geography, *etc.*)
- (2) aspects of Scripture that *may or may not* be directly inspired, depending on just how liberal the adherent is.

Some in the liberal ranks don't believe anything in Scripture is inspired (*e.g.*, Bultmann, Harnack, *et al*). More moderate liberals believe at least the salvific or religious teaching of Scripture is inspired; and most Catholic liberals believe at least that much because, they maintain, the Church requires them to do so (*e.g.*, Rahner, Brown, Kung, DeLubac, Schillebeeckx, *et al*). These are the Catholic liberals who believe that Vatican II's *Dei Verbum* 11 teaches Scripture is only inspired and inerrant

when it speaks about salvation, but the Catholic Church, in fact, has never said such, especially since it has not given an official interpretation of *Dei Verbum* 11. As far as the official teaching of the Catholic Church, it has never officially been changed from what it believed in its Tradition, namely, that *all of Scripture* is inspired and inerrant.

The term “fundamentalist” first appeared in the early to mid-twentieth century among Protestant denominations who were rapidly being split into conservative and liberal branches. The conservatives maintained their historic Protestant belief in things such as: 1) the divine inspiration and inerrancy of Scripture, and its literal interpretation; 2) the general resurrection; 3) the literal, bodily, Second Coming of Christ; 4) the virgin birth of Christ; 5) the miracles and prophecy of Scripture.

The Protestant liberals no longer believed any of these doctrines and tried their best to replace them with natural events. Hence, the inspiration of Scripture was reduced to merely man-made writing from someone who may have been spiritual-minded but not directed by the Holy Spirit to write. As such, a literal interpretation of Scripture was not required, and even if it was interpreted literally, it had no impact since it wasn’t inspired and inerrant (*e.g.*, Rudolph Bultmann). In line with this new thinking, the general resurrection and literal return of Christ (the Second Coming) were discarded, and both became “resurrections” taking place in our human disposition for the betterment of mankind. Likewise, there could be no virgin birth since God did not intrude into human affairs at that level, and thus Jesus Christ became a mere man who may have thought he was God, but actually discovered he wasn’t when he died on the cross (*e.g.*, Albert Schweitzer). Of course, the miracles of Jesus then became just normal events the Apostles exaggerated to make them appear as coming from divine origin. Likewise, prophecy was no longer an absolute prediction of the future, but the using of a past event and writing about it in Scripture as if it was a future event. Basically, liberalism sought to turn everything divine and miraculous recorded in Scripture into everything natural, mundane or non-existent.

Later in the 20th century when Catholic liberals began to imbibe much of the thought of Protestant liberals, many Catholic theologians began to teach the same ideas as the liberal Protestants, to varying degrees, or, as

much as they could get away with without being censored by the Catholic magisterium for going too far off the edge (e.g., Hans Kung). There were also a few Catholic theologians who flew under the radar screen of the magisterium by phrasing their liberal views in the form of questions instead of statements (e.g., Raymond Brown). In fact, Brown was so liberal a Catholic priest that he could teach at one of Protestantism's most liberal seminaries, Union Theological Seminary, and feel quite comfortable there. That is because Brown was closer theologically to the liberal Protestant who, like him didn't believe hardly anything the Bible said, than the traditional Catholics who, unlike Brown, accepted everything the Bible said. Brown believed that Scripture was not inspired or inerrant in its historical narratives, and thus he believed he could reject any statement Scripture made regarding history, chronology, science, cosmology, cosmogony, mathematics, geography, *etc.* It is the very reason why his *New Jerome Biblical Commentary* contains dozens of pages teaching the theory of evolution.

As we noted earlier, Brown based his belief in limited inerrancy on his own interpretation of *Dei Verbum* 11 (since the Church had not given an official interpretation). Liberal Catholic scholars of today collectively voiced their dubious opinions in the *New Jerome Biblical Commentary*:

...of *Dei Verbum*.... debates show an awareness of errors in the Bible. Thus...Scriptural teaching is truth without error to the extent that it conforms to the salvific purposes of God.²⁴⁴

In other words, these liberal theologians believe Scripture is subject to error when it speaks on issues of history, chronology, science, mathematics or the cosmos. It is no coincidence that most of the theologians who espouse biblical errancy are also evolutionists or believe in long-ages. Ever since the Church's confrontation with Galileo, they simply don't trust the Bible to give accurate historical information. Hence Fr. Brown, the editor of the *New Jerome Biblical Commentary*, criticizes what he calls "the Catholic right" who insist on: (a) the literal

²⁴⁴ *The New Jerome Biblical Commentary* (c. 1990), p. 1169, edited by Fr. Raymond Brown, along with Fr. Joseph Fitzmyer and Fr. Roland Murphy. Brown deceased in 1998, but probably remains one of the most influential liberal Catholic scholars of the past fifty years.

interpretation of the Genesis account, namely, creation in six days or six periods of time; (b) that human beings did not evolve from lower species; (c) that woman was formed from man's body; and (d) that life at the beginning of time was in an idyllic state.²⁴⁵

To add fuel to the fire, in their reinterpretation of Genesis liberal scholars posit the creation accounts in Genesis 1 and Genesis 2, respectively, are contradictory. In addition, they hold that Genesis 1 is not real history but merely a Jewish recapitulation of the Babylonian creation myth *Enumu Elish*²⁴⁶ concerning the ancient god Marduk and his conquering of the

²⁴⁵ Raymond Brown, *Origins*, May 7, 1981, p. 739. Fr. Brown also calls his Catholic critics "fundamentalists," and has some very harsh words for those who criticize his methodology of biblical hermeneutics. But as Stephen Clark has written: "Many who use the term [fundamentalist] in an inaccurate, derogatory way have come under the strong influence of secular humanism (liberal Protestantism, Modernism). They use the word as a term of abuse to discredit their more orthodox opponents. These people interpret scripture as a book which does not have God as its author in any significant sense, and as a book without real authority. Their approach to interpretation comes out of a line of thought which has compromised the fundamentals of the faith (including the articles of the creed and the commandments), and that seeks to interpret scripture in a way that allows that compromise" (*Man and Woman in Christ*, p. 350).

²⁴⁶ *Enumu Elish* means "When on high." Some of the lines of *Enumu Elish* read as follows: When above the heaven had not been named; and below the earth had not been called by a name; when Apsu primeval, their begetter; Mummu, and Ti amat, she who gave birth to them all; still mingled their waters together; And no pasture land had been formed and not even a reed march was to be seen; When none of the other gods had been brought into being; When they had not yet been called by their names, and their destinies had not yet been fixed; at that time were the gods created within them; Lahmu and Lahamu came into being; they were called by their names; Even before they had grown up and become tall; Anshar and Kishar were created; they surpassed them in stature; They lived many days, adding years to days; Anu was their heir presumptive, the rival of his fathers; Yea, Anu, his first-born, equaled Anshar; Yea, Anu, his first-born, equaled Anshar; And Anu begot Nudimud, his likeness; Nidimud, the master of his fathers was he; He was broad of understanding, wise, mighty in strength; Much stronger than his grandfather, Anshar; He had no rival among the gods of his brothers... (*The Babylonian Genesis*, Alexander Heidel, 2nd ed. University of Chicago Press, 1951, p. 8). It is amazing that scholars would once claim that *Enumu Elish* is the very "model" of Genesis, adding that the latter is a poor copy of the former. *Enumu Elish* is almost twice the length of Genesis 1, meandering from topic to topic; it is not a creation story, whereas Genesis clearly is; it is mythical poetry, whereas Genesis is didactic and academic, devoid of myth; Marduk appears on the scene

“waters of chaos.”²⁴⁷ They also believe Genesis 1-2 is: (a) not historical but merely a contest between two literary forms, the so-called Yahwist and the Elohist; (b) the Genesis writer had no interest in astronomy or biology and was as primitive in his thinking as the average pygmy today in Africa;

very late, whereas Elohim is the only agent making his world; Marduk struggles, whereas Elohim merely speaks and the work is done; Marduk is picked by the gods because they want revenge, whereas Elohim is in competition with no one and serves no one; Marduk is a bloody warrior and creates mayhem, whereas Elohim creates beauty and order; Marduk is constantly agitated and anticipating his next battle, whereas Elohim rests contently after his constructive work. If anything, Enumu Elish appears to be a corrupt form of Genesis 1.

²⁴⁷ Richard Clifford, S. J., in the *New Jerome Biblical Commentary*, states: “In Mesopotamian culture, evidently the model for most of the stories in Genesis 1-11, scribes explored beginnings through stories and cosmogonies, not through abstract reasoning....Genesis 1-11 then is a single story, an unusually sustained ‘philosophical’ and ‘theological’ explanation of the human race....The biblical writers have produced a version of a common Mesopotamian story of the origins of the populated world, exploring major questions about God and humanity through narrative” (pp. 8-9). In contrast, Bruce Vawter in *A Path Through Genesis* (Sheed and Ward, 1958) and *On Genesis: a New Reading* (Doubleday, 1977) admits that the author of Genesis 1 intentionally crafted a sharply different cosmology than *Enumu Elish*. Vawter writes: “Genesis took itself seriously as serious history....Genesis has been written out of an historical experience that was independent of the materials of which it fashioned its history, or better, which found in these materials resonances and insights that corresponded with the experience....Genesis stands apart from the rest of the Near Eastern myth and folklore to which it is otherwise so evidently related” (*On Genesis*, pp. 30-31). The contrasts are: many gods versus one god; gods as part of the world versus God not part of the world; matter exists first versus God exists first; stars help create the world versus stars being created on the fourth day; sea creatures rival the gods versus sea creatures as mere creatures. As Sir Frederic Kenyon states: “There is almost nothing to link the [Babylonian] narrative to that of Genesis” (*A Catholic Commentary on Holy Scripture*, London: Nelson, 1953, p. 184). Clifford’s reinterpretations of Genesis contradict the finding of the 1909 Biblical Commission: “Whether we may, in spite of the character and historic form of the book of Genesis...teach that the three aforesaid chapters do not contain the narrative of things which actually happened, a narrative which corresponds to objective reality and historic truth; and whether we may teach that these chapters contain fables derived from mythologies and cosmologies belonging to older nations...Answer: in the negative to each part.”

and (c) too much insertion of God into the cosmos is “akin to the monophysite heresy of the fourth century.”²⁴⁸

All of these assertions can be dismissed by remembering Scripture is very clear that, to Moses, the writer of Genesis, God spoke “face to face,” and in those encounters revealed to him things about the world that could never be known by reason, observation, or least of all, “historical criticism.”²⁴⁹ Because of these encounters, starting with God’s speaking to Noah, Abraham and Jacob, the Jews knew things about God and the creation that “Marduk” wouldn’t even hear for more than a millennia.²⁵⁰ As Moses told them in Dt 4:6-7:

²⁴⁸ As stated by Georgetown theology professor John Haught, *Commonweal*, January 28, 2000.

²⁴⁹ Exodus 33:11. As Basil writes: “We are proposing to examine the structure of the world and to contemplate the whole universe, beginning not from the wisdom of the world, but from what God taught his servant Moses when He spoke to him in person and without riddles” (*The Hexameron*, Homily 6, 1; 1, 1).

²⁵⁰ Unfortunately, some Catholic exegetes have been heavily influenced by the historical-critical theory that Genesis 1 was not written until the return from Babylonian captivity between 515 and 445 BC. Stanley Jaki states: “And since Genesis 1 is, on stylistic grounds alone, a patently post-exilic document...” in *Bible and Science*, p. 45, yet Jaki equivocates in *Genesis 1 Through the Ages*, pp. 25-26 and says that “accepting higher criticism about the three or more different sources of Genesis that almost force one to date Genesis 1 as post-exilic” (*ibid.*, p. 62). He traps himself, however, in his remarks on Psalm 104. After quoting, “You have spread out the heavens like a tent-cloth; you have constructed your palace upon the waters,” Jaki states that the phrase, ‘Nor shall they cover the earth again’ “includes a post-diluvian perspective” which “does not seem to bother the Psalmist.” This means that the Psalmist would have had the information both of Genesis 1 and Genesis 7-9 in order to make such a comparison between the two waters. If, as Jaki claims, Genesis 1 is “post-exilic” (a sixth century BC occurrence), Psalm 104, having been written about the eleventh century BC, would have no record of the “waters,” and thus, contrary to Jaki, Genesis 1 could not be “post-exilic.” We see the same sort of logic in Jaki’s view that the book of Ezekiel is “certainly a post-exilic product” (*ibid.*, p. 5). Jaki simply ignores the fact that Ezekiel makes it quite clear that he is predicting, and eventually in the midst of, the Babylonian captivity, not subsequent to it. To claim, as Jaki does, that Ezekiel is “post-exilic” means that there is no real prophecy in Ezekiel; rather, Ezekiel merely poses his after-thoughts as prophecy to give the impression of divine revelation. Modern scholars do the same with Daniel. All of Daniel’s prophecies are said to be written “after the fact,” and thus the so-called “prophecies” are merely historical recountings, not predictions of the future.

The people of the world will hear of these statutes and say, ‘Surely this great nation is a wise and understanding people. For what great nation is there that has a god so near to it as is the Lord our God whenever we call on Him?’²⁵¹

But once one rejects the inspiration and inerrancy of Scripture, he gives himself the right to substitute it with anything he wants. The sad thing is that Fr. Brown was promoted to the Pontifical Biblical Commission in 1992 by John Paul II, and Cardinal Ratzinger is noted as saying, “I wish I had a hundred exegetes like Raymond Brown.”

Fr. Brown chided Catholics who believed in the traditional doctrines (e.g., total inspiration and inerrancy of Scripture) and traditional interpretation of Scripture (e.g., literal, face value) and traditional doctrines of the Church (e.g., papal infallibility, women’s limited role) as “fundamentalists.” Hence the term was now being applied to Catholic conservatives as it had been previously applied to Protestant conservatives. A similar case appeared when Keating’s *Catholicism and Fundamentalism* came out in 1980. Here a mildly conservative Catholic apologetics institution was reapplying the term “fundamentalism” to Protestant denominations who had a penchant for interpreting the Bible literally. In

Although holding to evolution, Jaki does admit: “...the evolution of the universe, from very specific earlier states to a very specific present state, nothing is, of course as much as intimated in Genesis 1. Much less should one try to find there the idea of a biological evolution...” Jaki also admits: “In other words, nothing can any longer gloss over the fact that the fossil record defies the mechanism of evolution proposed by Darwin...the paleontological record was never known to have contained clear transitional forms, let alone a series of gentle gradations leading up to man...The only solid ground for holding evolution is belief in the createdness of the universe, and therefore in the strict interconnectedness of all its parts, a feature demanded by the infinite rationality of the Creator” (*ibid.* pp. 145-146). It is hard to say why Jaki feels he must limit God’s “rationality” to evolution as opposed to instantaneous, *ex nihilo*, creation.

²⁵¹ This is especially significant, since the oldest extant copies of *Enumu Elish* come from the 11th century B.C., four hundred years after Moses, and twelve hundred years after Abraham. W. G. Lambert writes: “...has shown evidence that Marduk...rose to officially sanctioned preeminence only in the late 12th century under Nebuchadnezzar I” (*New Catholic Encyclopedia*). If anything, this means the likelihood is the Hebrew tradition had influenced the surrounding pagan cultures, rather than vice-versa, but modern Scripture scholars refuse to admit this possibility.

either case, the word “fundamentalism” was used pejoratively. This was especially noted in the fact that many Catholics, following Fr. Georges Lemaître, began to believe the Big Bang and Darwin’s evolution were true. Keating, for example, adopted the same cosmogony and cosmology as Lemaître for the apologetics of *Catholic Answers*, and is now followed by its next president, Christopher Check. This means, of course, that the places the Bible speaks of the universe’s origins and operations were no longer taken literally. Once the groundswell of Catholic evolutionists reached its peak, those Catholics who still believed in Genesis’ literal origins (six days) and chronology (6000 years) would be castigated as “fundamentalists,” just as their conservative Protestant counterparts who interpreted Genesis 1 literally.

The rather odd feature to the whole debate is the fact that history shows the Catholic Church, if we want to borrow the term “fundamentalist,” was actually much more “fundamentalist” than conservative Protestants ever turned out to be. The very doctrines that undergird Catholic dogma were forged from little more than a literal interpretation of Scripture; and, in some case, could be called hyper-literal. For example, the passages Protestants are wholly reticent to interpret literally, such as Mt 26:26 (“This is my body, take and eat”) or John 3:5 (“Unless a man is born of water and the spirit...”) or Mt 16:16-18 (“You are Peter and upon this rock I will build my church...I give you the keys of the kingdom”), are the very passages that are the foundation of the Catholic religion, all interpreted in the most literal sense possible. In fact, the principle of literal interpretation applies to every Scripture the Catholic Church has made into dogma, with no exceptions.

Hence if there was any Church from history we would have to designate as “fundamentalist,” it would be the Catholic Church, whereas the beginnings of the Protestant church in 1500s under Luther struggled quite hard with whether they were going to interpret various passages literally or non-literally. It wasn’t until the Protestant churches of the 1800s and 1900s turned almost completely liberal wherein hardly anything in Scripture was interpreted literally was there was a backlash among the more conservative Protestants to at least bring literal interpretation and inerrancy back to five “fundamental” issues, namely: 1) the divine inspiration and inerrancy of

Scripture, and its literal interpretation; 2) the general resurrection; 3) the literal, bodily, Second Coming of Christ; 4) the virgin birth of Christ; 5) the miracles and prophecy of Scripture. Hence these “fundamentalists” salvaged five indispensable and irreducible doctrines of Scripture from the morass of confusion caused by the liberals. At the least, they could hold on to these five fundamentals and preserve whatever faith they had left.

Ironically, whereas traditional Catholicism was almost wholly “fundamental” in its approach to the Bible and the Protestants were more or less ambiguous about when they would apply their own “fundamentalism,” as conservative Protestants of the mid-20th century began to study science, including a focus and critique on the theory of evolution (e.g., Henry Morris), they began to add six-day creationism to their “fundamental” beliefs. Their conclusion was that the first eleven chapters of Genesis could be interpreted literally and the science they were discovering was backing it up in spades. At about the same time, the Belgian priest, Fr. Georges Lemaître, who rubbed shoulders with Albert Einstein, was leading the Catholic investigation into science, specifically into the areas of cosmogony and cosmology. But Lemaître, following the French and German Catholic schools, was a liberal theologian and thus had no reservations about replacing the literal words of Genesis for the Big Bang and evolution, following another liberal Catholic priest, Teilhard de Chardin. Moreover, once Pius XII’s 1943 encyclical, *Divino Afflante Spiritu*, finally allowed Catholic theologians to study the liberal Protestant’s approach to Scripture, it was only a matter of years that almost the entirety of Catholic academia had swallowed the errors of the liberal Protestants; although this movement was somewhat camouflaged because the Catholic theologians also boasted of their allegiance to the Catholic Church. Meanwhile, they amassed a virtual army of theologians to influence the Catholic hierarchy to change its views on Scripture. Although they had a lot of success (which can be seen in their success in making almost the entire Church believe, albeit unofficially, that *Dei Verbum* 11 teaches that only things of salvation were inspired and inerrant in Scripture), it never became part of Catholic doctrine.

An interesting facet of the turn in the Catholic Church from literal interpretation of Scripture to liberal interpretation is noted in the work of

Teilhard de Chardin regarding geocentrism. Teilhard's corrupting influence began in the early 1900s and found its way into many of the minds of the prelates who sat at Vatican II. Although he is best known for his "omega-searching" evolutionary ideas, Teilhard was also pushing for the connection between the demise of geocentrism and the rise of evolutionary thought, as well as his desire to rid the world of the traditional notion of Original Sin. In the book published in 1969 (fourteen years after his death), *Christianity and Evolution*, he writes:

It is not only, in fact, a few paleontological discoveries which are forcing the Church to lose no time in modifying her ideas about the historical evidence of human origins. The whole new physiognomy of the universe, as disclosed to us for some centuries now, is introducing an intrinsic imbalance into the very core of the dogma; and we cannot escape from this except through an extensive metamorphosis of the notion of original sin.

As a result of the collapse of geocentrism, which she has come to accept, the Church is now caught between her historico-dogmatic representation of the world's origin, on the one hand, and the requirements of one of her most fundamental dogmas on the other – so that she cannot retain the former without to some degree sacrificing the latter.

In earlier times, until Galileo, there was perfect compatibility between historical representations of the Fall and dogma of universal redemption – and all the more easily, too, in that each was modeled on the other. So long as people believed as St. Paul himself did, in one week of creation and a past of 4000 years – so long as people thought the stars were satellites of the earth, and that animals were there to serve man – there was no difficulty in believing that a single man could have ruined everything, and that another man had saved everything. Today we know, with absolute physical certainty, that the stellar universe is not centered on the earth, and that terrestrial life is not centered on mankind....

With the end of geocentrism, what was emerging was the evolutionist point of view. All that Galileo's judges could distinctly see as menaced was the miracle of Joshua. The fact was that in consequence the seeds of decomposition had been introduced into the whole of the Genesis

theory of the fall: and we are only today beginning to appreciate the depth of the changes which at that time were already potentially completed [in Galileo's day].²⁵²

The “collapse of geocentrism” was leading many Catholics, who were already predisposed to liberal theology and liberal hermeneutics, down the primrose path of accepting evolution as a fact. Another example is George Mivart, a convert to Catholicism in the late 1800s. As Finocchiaro describes it:

Mivart...argued for the compatibility of Christianity and evolution....that Galileo's trial showed that the Church was fallible in scientific matters, and so modern Catholics had complete freedom in scientific inquiry; but he argued that the Church's error on Copernicanism was a providential one...”²⁵³

First, notice Mivart's argument that since the Church erred in the Galileo case, Catholics had free reign regarding what scientific view of the universe they could hold. Second, we have noted previously the Church considered geocentrism primarily a theological issue, and only secondarily a scientific one. The Church stated, quite plainly, that since geocentrism was taught by Scripture it meant geocentrism was of divine origin in revelation, and being of divine origin meant it was a theological truth and thus also had to be a scientific truth, since God cannot lie in either case. It was for this reason the Church condemned heliocentrism as “formally heretical,” both in 1616 and 1633, and the very reason it could then convict Galileo of being “vehemently suspect” of teaching that formal heresy. We also note that Fr. Robinson falls into the same error of calling geocentrism a scientific and not a theological issue, the same mistake of de Chardin and Mivart. They do so because if they admit geocentrism is a theological issue, they immediately lose and their game is over.

Fr. Robinson: Nye...presented a barrage of scientific arguments supporting the Big Bang....Meanwhile, Ham...appealed to the authority of the Bible....If the Bible says that the universe and Earth are six thousand years old, then that is the way that it must be, regardless of

²⁵² Teilhard de Chardin, “Fall, Redemption and Geocentrism,” *Christianity and Evolution*, 1969, 1971, William Collins Co., Harcourt, pp. 37-38.

²⁵³ *Retrying Galileo*, pp. 260-261.

what science has to say...Nye used science to preach atheism, while Ham used the Bible to preach science (p. 234).

R. Sungenis: Not quite. I saw the debate. Ham used both science and the Bible. Anyone who knows Ken Ham knows he has always used both the Bible and science in his presentation of creationism. I don't know any creation scientist who doesn't. Fr. Robinson's assessment of Ham is nothing but a distortion, attempting to make Ham look like an ignorant Bible thumper.

Fr. Robinson: Nor was there any one there that night in Kentucky to indicate how the findings of modern science are at the least reconcilable with the Christian faith and, better yet, supportive of it.

R. Sungenis: That's because no one there should be accepting the Big Bang and long-ages without proof they are correct. Why would someone want the Bible to support the Big Bang if there was no proof for the Big Bang, and is, in fact, filled with an inordinate amount of anomalies and speculations? Fr. Robinson himself says, "Nye...presented a barrage of scientific arguments supporting the Big Bang model of the universe, which *postulates* that the universe began in time 13.7 billion years ago..." on the same page 234. But if the Big Bang is nothing but a "postulate," that means it's only an assumed truth, not one that has been proven, and Mr. Nye provide no proof. It is Fr. Robinson's "science" that isn't reconcilable with the Christian faith, not Ken Ham's or Robert Sungenis'. That's because Fr. Robinson only consults one side of the science debate and ignores whatever else gets in his way, the same as he did when he ignored the alternative geocentric explanations to stellar parallax; and how he looked at only one side of Newton and Einstein and refused to acknowledge what the two scientists said about the viability of geocentrism. That Fr. Robinson tries to present himself as the only scientist in this debate is typical of the smugness we often see in secular science and Catholic liberals.

Fr. Robinson: Protestantism would use the Bible to contradict the science, while Catholicism would use the science to change its interpretation of the Bible. (p. 246).

R. Sungenis: I don't know of one instance in which the Catholic Church, in any defined, declared and official statement, changed any of its "interpretation" of Scripture or doctrine of the Church. The only possible candidate is the encyclical, *Humani Generis*, which allowed for the study of evolution, whereas previously it was shunned. But *Humani Generis* did not endorse or condemn either side of the debate and thus remained neutral. One noteworthy statement in *Humani Generis* 35 was:

This [evolution] certainly would be praiseworthy in the case of clearly proved facts; but caution must be used when there is rather question of hypotheses, having some sort of scientific foundation, in which the doctrine contained in Sacred Scripture or in Tradition is involved.

Fr. Robinson himself has rejected evolution due to its "evidence" being derived from "hypotheses" rather than a "scientific foundation," especially when Scripture and Tradition are involved. I applaud him for that recognition. By the same token, Fr. Robinson's belief in the Big Bang is also built on hypotheses that are not "clearly proved facts."

In fact, the Big Bang has one of the biggest hurdles to climb over of any scientific hypothesis, namely, its opposition to the Second Law of Thermodynamics, which states that matter and energy move to increasing entropy (disorder), not order. In this case, Fr. Robinson wants us to believe exactly the opposite of what these fundamental laws of science stipulate. Here are some samples of what qualified scientists say about the second law of thermodynamics:

There is no mechanism known as yet that would allow the Universe to begin in an arbitrary state and then evolve to its present highly-ordered state.²⁵⁴

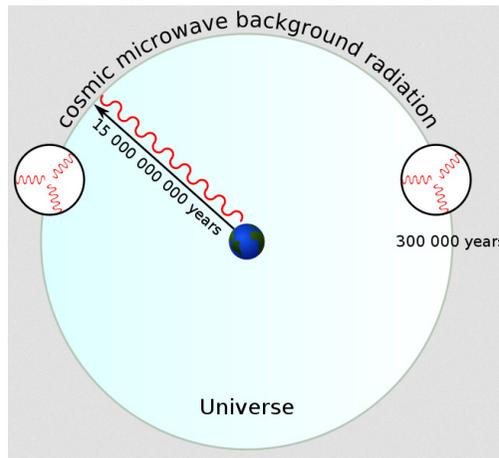
A final point to be made is that the second law of thermodynamics and the principle of increase in entropy have great philosophical implications. The question that arises is how did the universe get into the state of reduced entropy in the first place, since all natural processes known to us tend to increase entropy?....The author has found that the

²⁵⁴ Don N. Page, "Inflation Does not Explain Time Asymmetry," *Nature*, Vol. 304, 7 July 1983, p. 40.

second law tends to increase his conviction that there is a Creator who has the answer for the future destiny of man and the universe.²⁵⁵

This is ‘time’s greatest mystery’, and for all its merits, the theory of non-equilibrium systems does not touch it. What would touch it would be a cosmological demonstration that the Universe was bound to be in a low-entropy state after the Big Bang.²⁵⁶

Not once does Fr. Robinson explain how and why the so-called Inflation of the universe occurred, which is part and parcel with Big Bang theory. Inflation claims the Singularity expanded by 10^{35} meters in 10^{-35} seconds. Big Bang cosmology accepts Inflation only because they need Inflation. They need it because there is no other way to get around Einstein’s speed limit of 300,000 kilometers per second for the speed of light and gravity. This is known as the “Horizon Problem.” Limited to such parameters, the Big Bang would be impossible to conceive of mentally, much less physically, unless a fudge factor is added.



The Horizon problem

Big Bangers explain the Horizon Problem as follows:

When we look at the CMB it comes from 46 billion co-moving light years away. However when the light was emitted the universe was

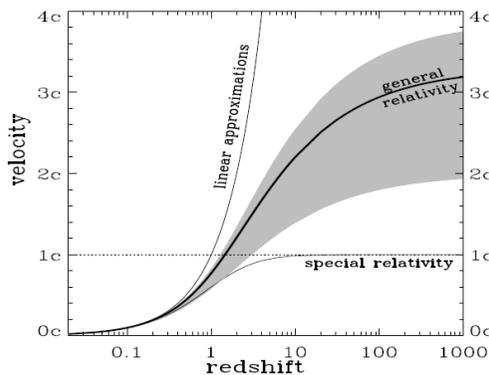
²⁵⁵ Gordon J. Van Wylen, *Thermodynamics*, John Wiley and Sons, 1959, p. 169.

²⁵⁶ Huw Price, “Past and Future,” *Nature*, Vol. 348, 22 November 1990, p. 356.

much younger (300,000 years old). In that time light would have only reached as far as the smaller circles. The two points indicated on the diagram would not have been able to contact each other because their spheres of causality do not overlap.²⁵⁷

So, to get around the problem, Big Bang theorists invoke Inflation (the Singularity expanded by 10^{35} meters in 10^{-35} seconds) wherein they can violate the “laws of nature” they had already sealed in Special Relativity (the expansion cannot go beyond the speed of light, c).

We can easily see how they make this stuff up as they go along. One falsehood forces them to create another falsehood to cover it up. Another required falsehood occurs when the Big Bangers have to explain how the universe, which is now said to be expanding way past the speed of light, can do so without, once again, violating the “laws of nature” in the Special Relativity theory. Since Big Bang cosmology theorizes that the higher the redshift the faster the galaxy or quasar is receding from us, some redshifts are so high the recession must be traveling at many times the speed of light. In this case, they eliminate Special Relativity and invoke the superluminal speeds allowed in General Relativity. This is noted, for example, in the plot of velocity v . redshift in a recent paper. It shows that while Special Relativity will allow celestial objects to recede at $1c$, General Relativity will allow them to recede at $3c$ and above.²⁵⁸



²⁵⁷ http://en.wikipedia.org/wiki/Horizon_problem.

²⁵⁸ “Superluminal Recession Velocities,” Tamara M. Davis and Charles H. Lineweaver, University of South Wales, Sydney, Australia, Jan. 3, 2001.

This wax nose model of switching theories together whenever confronted by various anomalies their Big Bang theory creates has been one of the assumed privileges of Einstein's Relativity. Of course, when other theories require that light, gravity or even a rotating universe should be able to travel faster than the limitation of c set by the Special theory, the Einsteinians and Big Bangers will complain superluminal speeds violate the "laws of nature." Only those privy to the open-ended parameters deep within the heart of General Relativity will stand by silently since they know that superluminal speeds, according to Einstein, can occur all over the universe.

Fr. Robinson also believes in the dark energy and the dark matter—proposed out of thin air by modern science—since without it their Big Bang universe doesn't have a chance of even being a pipe dream. Yet the inventions of Inflation and dark forces is propounded in the literature as if it's true beyond the shadow of a doubt, and Fr. Robinson has accepted it wholesale without the slightest critical evaluation. No wonder Ken Ham stayed away from *that* kind of science and preferred to stick with the Second Law of Thermodynamics.

While we're here, let's look at what else *Humani Generis* says with regard to our subject. On the Old Testament, in speaking of Catholic theologians or others...

...who place these scriptures on a par with myths or other such things, which are more the product of an extravagant imagination than of that striving for truth. The Book of Genesis both states the principal truths which are fundamental for our salvation, and also gives a popular description of the origin of the human race and the chosen people. (38)

But isn't the "placing of these scriptures on a par with myths" precisely what Fr. Robinson does when he and others like him conclude the description of Genesis' five days and first part of the sixth day are "myths" copied from Mesopotamian literature and, in any case, have no relevance of how the Creation was constructed by God? Pius XII says these passages—so easily dismissed by Fr. Robinson because they don't fit into his Big Bang and long-ages paradigm—are a "striving for truth." How could they be a striving for truth if Fr. Robinson and Fr. Jaki maintain that

the sun, moon and stars precede the formation of the Earth, which chronology Genesis 1:1-2 rejects? Granted, Pius XII also says that the account in Genesis 1 gives “a popular description of the origin of the human race and the chosen people,” but that only means other forms of literature had a similar account of history, not that the account in Genesis itself is untrue and mere story-filler.

Of course this is where the liberal Catholic tries to follow the Graf-Wellhausen theory, which holds the Hebrews copied and redacted the “origin stories” they received from Mesopotamian culture. But that is simply another unproven theory. As we have outlined earlier, the evidence shows just the opposite, namely, the Mesopotamian cultures copied and redacted the Genesis oral tradition.

Pius XII also says:

Let them strive with every force and effort to further the progress of the sciences which they teach; but let them also be careful not to transgress the limits which We have established for the protection of the truth of Catholic faith and doctrine. With regard to new questions, which modern culture and progress have brought to the foreground, let them engage in most careful research, but with the necessary prudence and caution; finally, let them not think, indulging in a false ‘irenicism’ that the dissident and the erring can happily be brought back to the bosom of the Church, if the whole truth found in the Church is not sincerely taught to all without corruption or diminution. (44)

As we would expect, Pius XII encourages a study of the sciences as any faithful Catholic would do who understands that all truth is God’s truth. But he also warns science has its limits and thus scientific conclusions about the data can never transgress the established doctrines of the Catholic faith. But transgress these doctrines is precisely what Fr. Robinson does. For example, when one believes in long-ages and the Big Bang, there is no room on the First Day for an Earth created in darkness before the Light is created. There is no room for a firmament of space on the Second day, since Fr. Robinson believes the firmament is depicted as a dome but does not exist in reality. There is no room for the plants on the Third day, because Fr. Robinson believes that not until the sun is established can we have living vegetation on Earth. Likewise, there is no

room for the Fourth day, since Fr. Robinson believes it is a conflation with the First Day because the sun and stars must be created before the Earth in the processes of a Big Bang. In short, it is Fr. Robinson who does not teach “the whole truth found in the Church...without corruption and diminution.” Rather, he avoids the Fathers, who taught us that the Days of Genesis were twenty-four hours;²⁵⁹ he avoids Scripture which tells us the Days were ones composed of “evening and morning” and not millions of years;²⁶⁰ and he avoids the magisterium who tells us all things were

²⁵⁹ **Basil:** “Thus were created the evening and the morning. Scripture means the space of a day and a night...If it therefore says ‘one day,’ it is from a wish to determine the measure of day and night, and to combine the time that they contain. Now twenty-four hours fills up the space of one day – we mean of a day and of a night.” (*Hexameron* 2, 8); **Ambrose:** “But Scripture established a law of twenty-four hours, including both day and night, should be given the name of day only, as if one were to say the length of one day is twenty-four hours in extent.” (*Hexameron* 1:37, FC 42:42); **Victorinus:** “The Creation of the World: In the beginning God made the light, and divided it in the exact measure of twelve hours by day and by night, for this reason, doubtless, that day might bring over the night as an occasion of rest for men’s labours; that, again, day might overcome, and thus that labour might be refreshed with this alternate change of rest, and that repose again might be tempered by the exercise of day. “On the fourth day He made two lights in the heaven, the greater and the lesser, that the one might rule over the day, the other over the night.” (*On the Creation of the World*, NPNF1, vol. 7, pp. 341-343); **Ephrem the Syrian:** “‘In the beginning God created the heaven and the earth,’ that is, the substance of the heavens and the substance of the earth. So let no one think that there is anything allegorical in the works of the six days. No one can rightly say that the things that pertain to these days were symbolic.” (*Commentary on Genesis, 1:1*, FC 91:74); **Irenaeus:** “For in as many days as this world was made, in so many thousand years shall it be concluded...For the day of the Lord is as a thousand years; and in six days created things were completed: it is evident, therefore, that they will come to an end at the sixth thousand year.” (*Against Heresies* 5, 28, 3).

²⁶⁰ The most conclusive evidence that the word “day” in Genesis 1 is to be interpreted literally as a 24-hour period is confirmed by the consistent use of the phrase “and there was evening and morning,” which appears in each of the days of Creation (*cf.* Gn 1:5, 8, 13, 19, 23, 31). As **Aquinas** notes: “Thus we find it said at first “He called the light Day”: for the reason that later on a period of twenty-four hours is also called day, where it is said “there was evening and morning, one day.” The use of “evening and morning” in Scripture shows it always refers to the sequence of darkness and light comprising a single period of a day, a 24 hour period. Outside of Genesis, there are only eight appearances of “evening and morning” but the meaning does not deviate (*cf.* Ex 16:8-13; 27:21; 29:39; Lv 24:3; Nm 9:21; Dn 8:26). There are some cases in which the words “morning” or

created “in their whole substance,” and not in bits and pieces.²⁶¹ Rather, he believes the speculative theories of modern science supersede the chronologies and genealogies of Sacred Scripture. Perhaps Fr. Robinson’s

“evening” appear separately with the word “day,” some of which refer to a literal solar day and some which are indefinite of time. But in Genesis, and the other eight aforementioned passages, “evening and morning” are coupled together and are specified as one unit of time. As for the meaning of *yom* (“day”) in Genesis, the textual and grammatical evidence is quite overwhelming that it refers to one solar day of 24 hours. First, whenever *yom* is used with an ordinal number in Scripture, it never refers to an indefinite or long period of time. In Genesis 1, there are six ordinal numbers enumerated: the first day...the second day...the third day...and so on to the sixth day. There is no instance in Hebrew grammar in which “day” preceded by an ordinal number is understood figuratively or as a long period of time. One of the better Hebrew grammars known to scholars, *Gesenius’ Hebrew Grammar*, elaborates on this point (editor E. Kautzsch, second English edition, revised by A. E. Crowley, 1980, pp. 287-292; 432-437). If the writer of Genesis intended to teach *yom* meant an indefinite period of time, such that he desired to convey long ages of process and change, he had numerous ways to convey such an idea. He could have used the plural *yomim* (Num 20:11); or as Moses does in Genesis 1:14 (“let them be for days and for years”) or Genesis 3:14 (“dust shall you eat all the days of your life”). But even then we must interject. Of the 702 uses of the plural *yomim* in the Old Testament, literal days are always in view. As an alternative, the writer could have connected *yom* with other Hebrew words of indefiniteness, such as *dor*, *olam*, *netsach*, *tamid*, or any of a dozen similar words and concepts in Hebrew. But the writer of Genesis 1 chose none of these possibilities; rather, he chose the most specific phrase for a 24-hour day that one can find in the Hebrew Scriptures. Moreover, further proof is noted in the creation of Eve. She was created from the side of Adam in an “evening and morning” sequence. According to the text of Genesis 1:27, Eve and Adam come into existence at the same time (the Sixth Day). Perhaps this is why theistic evolutionists have quietly shoved Pope Leo XIII’s encyclical *Arcanum Divinae Sapientiae* into the background. Eve is a huge obstacle for any evolutionary theory to overcome, and so far none have been able to surmount it. Regarding Numbers 20:11: “for in six days the Lord made heaven and earth, the sea, and all that is in them, and rested the seventh day.” The word “day” here is the Hebrew plural, *yomim* (“days”), followed by the quantitative adjective *rabbim*, which means “many.” In other words, the translation says “long time” because it is a long time. It is “many days” in Hebrew. But that is not the word used in Genesis 1. Each reference to *yom* in Genesis 1 is singular, referring to one day, with no adjectives.

²⁶¹ **Vatican I:** “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 produced by God from nothing, or, shall have said that God created not by a volition free of all necessity, but as necessarily as He necessarily loves Himself,

statement (“Catholicism would use the science to change its interpretation of the Bible”) was referring to the apparent change from geocentrism to heliocentrism in much of popular Catholic thinking today. But popular Catholic thinking is not the official doctrine of the Catholic Church. Popular Catholic thinking believes all kinds of false ideas and concepts, everything from contraception to communism, but none of it is Catholic doctrine. In fact, whenever we see popular sentiment attempting to change Catholic doctrine our alarm bells should immediately go off.

As for geocentrism, as of 1616 and 1633 it was the official doctrine of the Catholic Church since the Church officially designated the heliocentric view as a “formal heresy.” The status of that doctrine has not changed, since there has been no official statement from the Church in 400 years that has rescinded it in any form or degree.²⁶² In order to reverse a magisterial decision (assuming the doctrine of geocentrism was not ‘infallible,’ but we have no statement from the Church it was not infallible), the Church must make an official statement the doctrine is being rescinded, but no such statement has ever been issued. Although in 1821 Canon Settele was granted an imprimatur for his book on heliocentrism, and in 1835 Galileo’s name was taken off the Index, these, in themselves, are not official doctrinal statements by the Church. In fact, both imprimaturs and Indexes can be reversed at any time, and this happened quite often in Catholic history as even Galileo knows when his imprimatur was rescinded in 1632 by Pope Urban VIII. As for John Paul II’s speech to the Pontifical Academy of Science in 1992, it had no doctrinal status as an official teaching of the Catholic Church. As it stands,

or, shall have denied that the world was created to the glory of God: let him be anathema.”

²⁶² As Fr. Coyne puts it: “So far as we can conclude from the circumstances of the condemnation, Pope Urban VIII and the cardinals of the Holy Office certainly did not themselves think it to be “reformable.” Furthermore, if it was reformable, why has the condemnation of 1633 or, for that matter, the Decree of the Congregation of the Index in 1616 never explicitly been ‘reformed?’” (*The Church and Galileo*, p. 354). Coyne adds: “In the Galileo case the historical facts are that further research into the Copernican system was forbidden by the decree of 1616 and then condemned in 1633 by official organs of the Church with the approbation of the reigning pontiffs” (*ibid*).

then, the 1616 and 1633 defined declarations²⁶³ against heliocentrism as a formal heresy by the Holy Office and approved in toto by Pope Paul V and Pope Urban VIII stand as the last and only official statements by the Catholic Church on geocentrism.

Fr. Robinson: To understand the Bible’s meaning, it is crucial then, to understand the purpose of those authors in their writing. What truths did they intend to convey in the Bible? How did they intend to convey those truths.” (p. 246).

R. Sungenis: The “intent” of the biblical author has always been a favorite ploy of liberal exegesis. Fr. Robinson’s appeal to it is similar to another Catholic scholar I had to deal with a few years ago, but this one believes in evolution, not merely long-ages. His name is Fr. Nicanor Austriaco, a Dominican with a Ph.D. in the biological sciences. In one of his papers, he states:

Fr. Austriaco: In other words, the Catholic exegete is called to respect the text as it is. He is called to read Genesis as its human author wished it to be read, not as a scientific treatise, but as a religious narrative that communicates profound truths about the Creator.

R. Sungenis: Notice how Fr. Austriaco attempts to convince us he has special insight on how the “human author wished it to be read.” How does

²⁶³ The sentence against Galileo stated: “And whereas a book appeared here recently, printed last year at Florence, the title of which shows that you were the author, this title being: “Dialogue of Galileo Galilei on the Great World Systems: Ptolemy and Copernicus”; and whereas the Holy Congregation was afterwards informed that through the publication of the said book the false opinion of the motion of the Earth and the stability of the sun was daily gaining ground, the said book was taken into careful consideration, and in it there was discovered a patent violation of the aforesaid injunction that had been imposed upon you, for in this book you have defended the said opinion previously condemned and to your face declared to be so, although in the said book you strive by various devices to produce the impression that you leave it undecided, and in express terms probable: which, however, is a most grievous error, as an opinion can in no wise be probable which has been declared and defined to be contrary to divine Scripture.” (“...non potendo in niun modo esser probabile un’opinione dichiarata e difinita per contraria alla Scrittura divina”). *Le Opera di Galileo Galilei*, vol. 5, pp. 335-336, translated by Finocchiaro, cited in *Galileo: For Copernicanism*, pp. 201-202.

Fr. Austriaco know what the “human author” of Genesis intended? Unfortunately, he doesn’t tell us. He just assumes the “human author” wanted his text devoid of specific historical and scientific truth, and then Fr. Austriaco imposes that conclusion on his reader. This is a common practice of liberal theologians who come to Genesis with a bias against the literal reading because of their commitment to evolutionary theory or long-ages. The constant appeal is to the “intent” of the author, as if the modern exegete is able to read the mind of the author who lived thousands of years ago. But the appeal to “intent” is a mine-field of subjectivity. As opposed to Fr. Austriaco’s methodology, Pius XII declared we know the intent of the author by interpreting his words literally:

Let the interpreters bear in mind that their foremost and greatest endeavor should be to discern and define clearly that sense of the biblical words which is called literal. Aided by the context and by comparison with similar passages, let them therefore by means of their knowledge of languages search out with all diligence the literal meaning of the words...so that the mind of the author can be made clear.²⁶⁴

Fr. Austriaco: Cardinal Ratzinger’s first criterion for exegesis echoes the teaching of the Second Vatican Council. In *Dei verbum*, the Dogmatic Constitution on Revelation, the Council Fathers taught that,

Those who search out the intention of the sacred writers must, among other things, have regard for “literary forms.” For truth is proposed and expressed in a variety of ways, depending on whether a text is history of one kind or another or whether its form is that of prophecy, poetry, or some other type of speech. The interpreter must investigate what meaning the sacred writer intended to express and actually expressed in particular circumstances as he used contemporary literary forms in accordance with the situation of his own time and culture.²⁶⁵

²⁶⁴ *Divino Afflante Spiritu*, para 23.

²⁶⁵ *Dogmatic Constitution on Divine Revelation, Dei verbum*, November 18, 1965: AAS 58 (1966) 817-830, no. 12. All English citations from the texts of Vatican II are taken from Walter M. Abbott, S. J., ed. *The Documents of Vatican II* (New York: Guild Press, 1966).

R. Sungenis: Of course, but what does this prove for Fr. Austriaco's case? The Fathers and the doctors of the Catholic Church, from the Church's inception, understood the differences among the various types of biblical literature. They told us to take these differences into account before we settled on an interpretation of Scripture. They knew the difference between poetry and history, for example. This is nothing new, and thus Vatican II is following the tradition of the Church. But Fr. Austriaco seeks to convey from *Dei Verbum's* wording that the Church of tradition did not have any notion of literary types, subsequently implying they were at fault for interpreting Genesis 1 literally.

Fr. Austriaco's approach to tradition is similar to Fr. Raymond Brown's, only Brown adds the literary form of "fiction" to the possibilities that Fr. Austriaco stated above. According to Fr. Brown, the Genesis writer is merely telling a fictional story. He insists that no detail recorded in Genesis 1 ever happened. Similar to Fr. Austriaco, Fr. Brown resigns us to saying the only truth we can get out of Genesis 1 is "God created the world," which is the same conclusion Fr. Robinson comes to. In reality, this denuding of Genesis is merely Fr. Brown's imposition on Scripture, since Scripture never claims to be telling narratives that are fictional.

Not surprisingly, identical to Fr. Austriaco, Fr. Brown believed in the evolutionary theory. In order to make his Catholicism consistent with evolution, either religion or evolution had to bend. So Fr. Brown made his Catholicism bend, not evolution. Fr. Austriaco seems to be of the same mold. He accepts the evolutionary hypothesis as more credible than the face value words of Genesis 1, and thus Fr. Austriaco will seek to interpret Genesis from the evolutionary framework. He will then try to convince the reader that his non-literal exegesis is perfectly acceptable "because history and science were never the intent of the human author of Genesis." Yet Fr. Austriaco offers no evidence he knows the intent of the author, much less offers us proof of his claim. The same is true for Fr. Robinson.

Fr. Robinson: Catholics do not start with the Bible, moving from it to build a body of doctrines. Rather, they start with a body of doctrines which they claim to have come from Jesus Christ and interpret the Bible in line with those doctrines. This is the first limitation on the

reading of Scripture: its meaning must match with the teachings of the Catholic faith. If a given interpretation of the Bible contradicts a Catholic dogma, then that interpretation must be rejected, not the Catholic dogma.

R. Sungenis: If these words are true, then Fr. Robinson is one of the biggest offenders against them and he has basically nullified the whole thesis of his book. As we have seen, it is a fact the Church Fathers, in absolute consensus, believed in short-ages, not long-ages of billions of years. Even St. Augustine, with his first and second interpretation of Genesis, believed everything was created in one day or in six days, with not even a mention the days could be billions of years. As Catholics, we would assume the doctrine of creation in, at most six days, was passed down by the Apostles to the Fathers. Later, this short-age creation was dogmatized at both Lateran Council IV and Vatican Council I, since neither council speaks or even implies long-ages, but says everything was created “at once” by God, *ex nihilo*. The idea of long-ages didn’t surface in society until hundreds of years after Lateran Council IV when secular scientists such as Charles Darwin and Charles Lyell introduced the idea to secular society.

Moreover, even with Pius XII’s 1950 encyclical, *Humani Generis*, there was no official acceptance from the magisterium of long-ages or evolution, even though Catholic exegetes were allowed to study these concepts. In fact, Pius XII made sure he put plenty of caution in Catholic study not to accept these new concepts without proof. As it stands, Fr. Robinson has no proof for long-ages, since modern radiometry is, at best, an equivocal science that has no hard proof. As noted, Catholic dogma contains no mention of either long-ages or evolution, speaking only of one day or six days as the length of the Creation. It seems obvious, then, that Fr. Robinson has done the very thing he claims to avoid in his above paragraph. His interpretation of Genesis as comprising of long-ages is simply not in the teachings of the Catholic faith, and, in fact, contradicts the “at once” teaching of Lateran IV and Vatican I.

The only escape that Fr. Robinson might have is the stipulation by the 1909 Pontifical Biblical Commission that “day” in Genesis 1 could be

interpreted as “24-hours” or as a “certain period of time,” but there is nothing in Catholic tradition or dogma that would allow him to interpret “certain period of time” as being long-ages of billions of years, since the Church simply didn’t teach that concept as a possibility.

In fact, in regards to the PBC’s statement that “day” in Genesis 1 can be interpreted as 24-hours, it is Fr. Robinson who is in the wrong, since he teaches that Genesis 1 *cannot* be referring to 24-hours as the measure of a day, since Genesis 1, in his estimation, isn’t even an historical text, much less one with the accuracy of 24-hour days.

A similar case can be made against Fr. Robinson with regard to geocentrism. The Fathers were in absolute consensus that geocentrism was taught by the Bible. The 1559 Index was the first to officially confirm this fact by putting Copernicus’ book on the Index, where it remained for nearly the next 300 years. The 1566 Tridentine catechism was the second to confirm geocentrism. The third confirmation occurred by the decision of the magisterium in 1616. Robert Cardinal Bellarmine and Pope Paul V stipulated to Galileo, in a canonical injunction, that he could not teach heliocentrism since the Council of Trent stated that we could not go against what the Fathers taught in consensus.²⁶⁶ Seventeen years later in

²⁶⁶ The sentence stated: “But whereas it was desired at that time to deal leniently with you, it was decreed at the Holy Congregation held before His Holiness on 25 February 1616, that his Eminence the Lord Cardinal Bellarmine should order you to abandon altogether the said false doctrine and, in the event of your refusal, that an injunction should be imposed upon you by the Commissary of the Holy Office to give up the said doctrine and not teach it to others, not to defend it, nor even discuss it; and failing your acquiescence in this injunction, that you should be imprisoned. And in execution of this decree, on the following day, at the Palace, and in the presence of his Eminence, the said Lord Cardinal Bellarmine, after being gently admonished by the said Lord Cardinal, the command was enjoined upon you by the Father Commissary of the Holy Office of that time, before a notary and witnesses, that you were altogether to abandon the said false opinion and not in future to hold or defend or teach it in any way whatsoever, neither verbally nor in writing; and, upon your promising to obey, you were dismissed....And, in order that a doctrine so pernicious might be wholly rooted out and not insinuate itself further to the grave prejudice of Catholic truth, a decree was issued by the Holy Congregation of the Index prohibiting the books which treat of this doctrine and declaring the doctrine itself to be false and wholly

1633, the magisterium condemned heliocentrism again and reiterated it as a “formal heresy” and put Galileo under house arrest since he was “vehemently suspect” of that heresy. As noted, the Church had to define and declare the heresy before Galileo was found “suspect” of it. The popes also sent notices out to all of Europe for everyone to heed the Church’s decision. In addition, Newton’s famous *Principia* (in which he taught heliocentrism) was issued with a Catholic disclaimer stating that the popes of the Catholic Church had condemned heliocentrism. Unfortunately, the Catholic populace at large, including Fr. Robinson, ignore all this history and pretend as if it never occurred. But if there was any time in “the reading of Scripture: its meaning must match with the teachings of the Catholic faith,” (as Fr. Robinson states above), this was it. If there was any time that “a given interpretation of the Bible (Fr. Robinson’s heliocentrism) contradicts a Catholic dogma, then that interpretation must be rejected, not the Catholic dogma,” this was it.

Some try to get around the history by claiming the popes never signed the decrees, even though they may have signed the Vatican’s dissemination of the decision to the rest of Europe, and therefore the decree is not infallible. But there are several problems with this attempted escape. First, I am not aware of any stipulation in canonical law that a pope had to sign a decree. Although a signature surely made clear the pope’s intention and directive, his verbal confirmation was never said to be without the same authority, especially since the rules of papal infallibility were not yet formulated; and even when they were formulated in 1870 at Vatican I, it did not say that the pope’s signature was required.

Second, even if the geocentric doctrine was not given on the level of infallibility (and only the Church herself can determine whether it is, but has never done so), this does not make the doctrine an error, since many papal decrees were given on lower levels of canonical authority and, according to Pius XII’s decree and its confirmation at Vatican II in both *Lumen Gentium*²⁶⁷ and *Humani Generis* in 1950,²⁶⁸ we are to assent to

contrary to the sacred and divine Scripture.” (*op. cit.*, *Le Opera di Galileo Galilei*, vol. 5).

²⁶⁷ *Lumen Gentium* 25 states: “This loyal submission of the will and intellect must be given, in a special way, to the authentic teaching authority of the Roman

them and hold them as doctrine. Today, however, Catholics who desire to believe in heliocentrism wish the geocentric doctrines were a mistake so they can then claim they don't need to follow the doctrine, such as Fr. Robinson. But they have no right to do so, even if they claim science proves the decrees against Galileo were a mistake, for only the Church can determine if the science has reached the needed level of proof, and She has never done so.

In examining *Lumen Gentium* 25 in detail, the Church's historic teaching on geocentrism and her condemnation of heliocentrism fulfills all its criteria:

- “that his supreme teaching authority be acknowledged with respect”:

It was certainly the case that popes Paul V, Urban VIII and Alexander VII understood themselves and their decrees against heliocentrism as coming from their “supreme teaching authority” and commanded it be “acknowledged with respect.” Urban VIII, for example, approved his Holy Office's conclusion heliocentrism was “formally heretical” and “erroneous in faith,” and demanded Galileo sign an abjuration to that effect. Obviously, Pope Urban VIII also considered his predecessor's decree, Paul

Pontiff, even when he does not speak *ex cathedra* in such wise, indeed, that his supreme teaching authority be acknowledged with respect, and sincere assent be given to decisions made by him, conformably with his manifest mind and intention, which is made known principally either by the character of the documents in question, or by the frequency with which a certain doctrine is proposed, or by the manner in which the doctrine is formulated.”

²⁶⁸ *Humani Generis* states: “Nor must it be thought that what is expounded in Encyclical Letters does not of itself demand consent, since in writing such Letters the Popes do not exercise the supreme power of their Teaching Authority. For these matters are taught with the ordinary teaching authority, of which it is true to say: “He who heareth you, heareth me”; and generally what is expounded and inculcated in Encyclical Letters already for other reasons appertains to Catholic doctrine. But if the Supreme Pontiffs in their official documents purposely pass judgment on a matter up to that time under dispute, it is obvious that that matter, according to the mind and will of the Pontiffs, cannot be any longer considered a question open to discussion among theologians.”

V's, as authoritative, binding, and demanding respect, since the 1633 decree was based on the condemnations of the 1616 decree.

- “and sincere assent be given to decisions made by him”:

It was certainly the case that the decrees against Copernicanism required the “assent” of Galileo, Foscarini, and all the other theologians who were venturing into the area of biblical cosmology. Urban VIII sent letters of the decree against Copernicanism and Galileo’s abjuration to all the papal nuncios and universities of Europe showing the seriousness of the issue and his desire to have it widely disseminated so that the Christian faithful would be obedient to it. Alexander VII devoted a signed papal bull to the subject of banning books that threaten the faith and welfare of the Christian faithful, stating: “We command each and every one of our venerable brethren, the patriarchs, archbishops, bishops and other Ordinaries of places, as well as those beloved sons who are their vicars and officials, the inquisitors of heretical depravity, the superiors of every kind of religious Order, congregation, society, or institute, and all others...” to obey his words.

- “conformably with his manifest mind and intention”:

Few can read the documents surrounding the Galileo affair and come away without the conviction that the popes, cardinals and the Holy Offices were as resolute in their condemnation of Copernicanism as they have been about most major doctrines of the Church. The popes used and approved very solemn and foreboding language and made sure that the decrees were enforced throughout Europe.

- “which is made known principally either by the character of the documents in question”

The decrees against heliocentrism were put in place for the express purpose of protecting Scripture from false interpretations and protecting the Christian faithful from harmful teachings. Even if the decrees did not reach the level of being declared formally infallible, they are, nevertheless, on the same level of “ordinary” or “traditional” authority as most other doctrines the Church has taught.

- “or by the frequency with which a certain doctrine is proposed”

The formal and official condemnations of Copernicanism spanned a period of fifty years (1615-1665) and were delineated by three different popes. The number of ecclesiastical documents and other personal correspondences written about the Galileo affair over the course of three decades (1615-1633) exceed 7,000. Obviously the Church considered this a grave matter. She incessantly appealed to the 1500 years of tradition on the teaching of geocentrism as her greatest bulwark against the new ideas of Copernicus and Galileo.

- “or by the manner in which the doctrine is formulated”:

During the condemnations against heliocentrism the Church issued some of the most detailed and comprehensive decrees ever written. Every wrinkle of the issue was investigated; arguments were presented and rebutted; witnesses were put under oath; experts were called in for testimony; the most severe and condemnatory language was formulated in the final decree, that is, heliocentrism was “formally heretical” and “erroneous in faith.” If geocentric doctrine does not qualify under the rubrics of *Lumen Gentium* 25, what does?

Vatican I also had some important things to say regarding the authority of the ordinary magisterium and the claims of modern science. They are as follows:

Vatican I: Further, by divine and Catholic faith, all those things must be believed which are contained in the written word of God and in tradition, and those which are proposed by the Church, either in a solemn pronouncement or in her ordinary and universal teaching power, to be believed as divinely revealed.²⁶⁹

In regard to “those things proposed by the Church,” Vatican I makes no distinction between a “solemn pronouncement” (an infallible, *ex cathedra*, definition) and the ordinary magisterium, insofar as it concerns the truth of a doctrine. Both sources are to be considered as “divinely revealed.” Hence, if the condemnations of heliocentrism, which were “declared and

²⁶⁹ Denzinger ¶1792.

defined” as being “formally heretical” and “erroneous in faith” were not “solemn pronouncements,” it follows they were authoritative decisions from the “ordinary magisterium,” and are likewise to be understood as “divinely revealed.” Vatican I adds:

Vatican I: By enduring agreement the Catholic Church has held and holds that there is a twofold order of knowledge, distinct not only in principle but also in object: (1) in principle, indeed, because we know in one way by natural reason, in another by divine faith; (2) in object, however, because, in addition to things to which natural reason can attain, mysteries hidden in God are proposed to us for belief which, had they not been divinely revealed, could not become known.²⁷⁰

In this case, the matter of geocentrism, which, on one level, the Church proposed as a “matter of faith,” it is a fact that modern science, especially the relativistic forms, admits that it cannot determine whether the Earth moves or is stationary. In effect, the immobility of the Earth is something that can only be revealed by “divine faith.”

Vatican I: But, although faith is above reason, nevertheless, between faith and reason no true dissension can ever exist, since the same God, who reveals mysteries and infuses faith, has bestowed on the human soul the light of reason; moreover, God cannot deny Himself, nor ever contradict truth with truth. But, a vain appearance of such a contradiction arises chiefly from this, that either the dogmas of faith have not been understood and interpreted according to the mind of the Church, or deceitful opinions are considered as the determinations of reason. Therefore, “every assertion contrary to the truth illuminated by faith, we define to be altogether false.”²⁷¹

In regards to the issue of geocentrism, both of the above warnings come into play: (a) Cardinal Bellarmine informed Galileo geocentrism was a “matter of faith” and the Church, based on the consensus of the Fathers, could not interpret Scripture in opposition to the same literal interpretation that had been passed down to it through the preceding centuries. In essence, Galileo was accused of not interpreting Scripture “according to the mind of the Church”; (b) since false claims of scientific proof for

²⁷⁰ Denzinger ¶1795.

²⁷¹ Denzinger ¶1797.

heliocentrism were consistently being advanced (*e.g.*, Foscarini, Galileo, Kepler, Bradley, Settele, Boscovich, Newton, Bessel), and from which many people became convinced that heliocentrism was correct, these would have to be classed as “deceitful opinions [that] are considered as the determinations of reason.”

Vatican I: Further, the Church which, together with the apostolic duty of teaching, has received the command to guard the deposit of faith, has also, from divine Providence, the right and duty of proscribing “knowledge falsely so called” [1Tm 6:20], “lest anyone be cheated by philosophy and vain deceit” [Cl 2:8]. Wherefore, all faithful Christians not only are forbidden to defend opinions of this sort, which are known to be contrary to the teaching of faith, especially if they have been condemned by the Church, as the legitimate conclusions of science, but they shall be altogether bound to hold them rather as errors, which present a false appearance of truth.²⁷²

Obviously, Galileo was “forbidden to defend opinions” of “knowledge falsely so called,” concerning the claims of science that asserted the Earth revolved around the sun.²⁷³ Galileo was reminded in 1633 that heliocentrism, as early as 1616, had already been “declared and defined as opposed to Scripture,” and was then declared to be “formally heretical” and “erroneous in faith” in 1633. Hence, the Church made it known that heliocentrism was, in the language of Vatican I, “known to be contrary to the teaching of faith,” since it had clearly “been condemned by the Church,” even though it was commonly believed to be a “legitimate conclusion of science.” These “legitimate conclusions,” the Church warned, could “present a false appearance of truth,” which is certainly the case for heliocentrism since geocentrism can be demonstrated to work just as well on a geometric and dynamic scientific basis. It is quite clear that the ordinary magisterium can, without invoking infallibility, declare these theoretical beliefs of science as propping up a “false appearance,” and are thus “formally heretical” and “erroneous.” It is clear this was done in

²⁷² Denzinger ¶1798.

²⁷³ Some Bibles during this precise time in history (1611-1633) translate 1 Timothy 6:20 as “science falsely so called” (KJV), which shows a common understanding in the early 1600s that “science” was often equated with “knowledge.”

1616, 1633 and 1664, and these teachings against heliocentrism were never officially and formally rescinded or reformed.

Vatican I: And, not only can faith and reason never be at variance with one another, but they also bring mutual help to each other, since right reasoning demonstrates the basis of faith and, illumined by its light, perfects the knowledge of divine things, while faith frees and protects reason from errors and provides it with manifold knowledge. Wherefore, the Church is so far from objecting to the culture of the human arts and sciences, that it aids and promotes this cultivation in many ways. For, it is not ignorant of, nor does it despise the advantages flowing therefrom into human life; nay, it confesses that, just as they have come forth from “God, the Lord of knowledge” [1 Samuel 2:3], so, if rightly handled, they lead to God by the aid of His grace. And it (the Church) does not forbid disciplines of this kind, each in its own sphere, to use its own principles and its own method; but, although recognizing this freedom, it continually warns them not to fall into errors by opposition to divine doctrine, nor, having transgressed their own proper limits, to be busy with and to disturb those matters which belong to faith.²⁷⁴

If, for example, “right reasoning” was employed in 1887 when the Michelson-Morley experiment was performed, it would have shown that the null result meant the Earth was not revolving around the sun, not that matter shrank when it moved (as Einstein proposed). In that case “reason” would have worked very well with “faith.” But Einstein, being an atheist, had no faith. He consistently ridiculed Christianity. Therefore, he considered a stationary Earth “unthinkable.” His colleague, Edwin Hubble, a like-minded atheist, even though he saw through his telescope evidence the Earth was in the center of the universe, rejected it as a “horrible” possibility and to be “avoided at all costs.” Faith in Scripture could have provided the necessary boundaries for the crucial interpretations of the scientific experiments of the late 1800s and 1900s. Science would have been spared the wild goose chase it was forced to run as it began inventing a world in which twins age at different rates, clocks slow down at will, matter shrinks upon movement, where one is forced to say that up may be

²⁷⁴ Denzinger ¶1799.

down and left may be right in order to have at least some answer to these crucial experiments. As Thomas Aquinas put it:

The knowledge proper to this science of theology comes through divine revelation and not through natural reason. Therefore, it has no concern to prove the principles of other sciences, but only to judge them. Whatever is found in other sciences contrary to any truth of this science of theology, must be condemned as false.²⁷⁵

Vatican I concludes:

For, the doctrine of faith which God revealed has not been handed down as a philosophic invention to the human mind to be perfected, but has been entrusted as a divine deposit to the Spouse of Christ, to be faithfully guarded and infallibly interpreted. Hence, also, that understanding of its sacred dogmas must be perpetually retained, which Holy Mother Church has once declared; and there must never be recession from that meaning under the specious name of a deeper understanding. “Therefore...let the understanding, the knowledge, and wisdom of individuals as of all, of one man as of the whole Church, grow and progress strongly with the passage of the ages and the centuries; but let it be solely in its own genus, namely in the same dogma, with the same sense and the same understanding.”²⁷⁶

Third, perhaps one of the most overlooked reasons why the doctrine of geocentrism should be considered infallible comes, quite surprisingly, from one of the more modern declarations concerning the teachings of the Church. Earlier we quoted from *Lumen Gentium* 25 to show that Catholics are required to give obedience to both infallible and non-infallible teachings of the Church. Yet *Lumen Gentium* contains an even more significant requirement for obedience in regards to geocentric doctrine, and it certainly seems to make the doctrine infallible. It is stated in Paragraph 12:

The holy People of God shares also in Christ’s prophetic office: it spreads abroad a living witness to him, especially by a life of faith and love and by offering to God a sacrifice of praise, the fruit of lips

²⁷⁵ *Summa Theologica*, I, Ques. 1, Art. 6, ad. 2.

²⁷⁶ Denzinger ¶1800.

praising his name (cf. Heb. 13:15).²⁷⁷ The whole body of the faithful who have an anointing that comes from the holy one (cf. 1 Jn. 2:20 and 27)²⁷⁸ cannot err in matters of belief. This characteristic is shown in the supernatural appreciation of the faith (*sensus fidei*)²⁷⁹ of the whole people, when, “from the bishops to the last of the faithful”²⁸⁰ they manifest a universal consent in matters of faith and morals. By this appreciation of the faith, aroused and sustained by the Spirit of truth, the People of God, guided by the sacred teaching authority (*magisterium*), and obeying it, receives not the mere word of men, but truly the word of God (cf. 1 Th 2:13),²⁸¹ the faith once for all delivered to the saints (cf. Jude 3).²⁸² The people unfaithfully adheres to this faith,

²⁷⁷ “Through him then let us continually offer up a sacrifice of praise to God, that is, the fruit of lips that acknowledge his name.”

²⁷⁸ “But you have been anointed by the Holy One, and you all know....but the anointing which you received from him abides in you, and you have no need that any one should teach you; as his anointing teaches you about everything, and is true, and is no lie, just as it has taught you, abide in him.”

²⁷⁹ *Lumen Gentium* 12 adds this footnote: “(The *sensus fidei* refers to the instinctive sensitivity and discrimination which the members of the Church possess in matters of faith. – Translator.)”

²⁸⁰ *Lumen Gentium* 12 adds this footnote: “See St. Augustine, *De Praed. Sanct.* 14, 27: *PL* 44, 980.” This refers to Augustine’s work *Predestination of the Saints*, Book II, Chapter 14: This grace He placed “in Him in whom we have obtained a lot, being predestinated according to the purpose of Him who worketh all things.” And thus as He worketh that we come to Him, so He worketh that we do not depart. Wherefore it was said to Him by the mouth of the prophet, “Let Thy hand be upon the man of Thy right hand, and upon the Son of man whom Thou madest strong for Thyself, and we will not depart from Thee.” This certainly is not the first Adam, in whom we departed from Him, but the second Adam, upon whom His hand is placed, so that we do not depart from Him. For Christ altogether with His members is--for the Church’s sake, which is His body – the fulness of Him. When, therefore, God’s hand is upon Him, that we depart not from God, assuredly God’s work reaches to us (for this is God’s hand); by which work of God we are caused to be abiding in Christ with God – not, as in Adam, departing from God. For “in Christ we have obtained a lot, being predestinated according to His purpose who worketh all things.” This, therefore, is God’s hand, not ours, that we depart not from God. That, I say, is His hand who said, “I will put my fear in their hearts, that they depart not from me.”

²⁸¹ “And we also thank God constantly for this, that when you received the word of God which you heard from us, you accepted it not as the word of men but as what it really is, the word of God, which is at work in you believers.”

²⁸² “Beloved, being very eager to write to you of our common salvation, I found it necessary to write appealing to you to contend for the faith which was once for all delivered to the saints.”

penetrates it more deeply with right judgment, and applies it more fully in daily life.²⁸³

Since it is a fact the “People of God,” which includes “the bishops to the last of the faithful,” have believed unanimously, firmly and without equivocation in the doctrine of geocentrism from the beginning of the Catholic Church and throughout nearly two millennia, and who were “guided by the sacred teaching authority” to do so, this belief necessarily fulfills the criteria of *Lumen Gentium 12* that these same People of God “cannot err.” It is an undeniable fact that all the Fathers, all the medievals, all the bishops, priests, saints, doctors, theologians and the remaining Christian faithful of every nation believed in the doctrine of geocentrism. Additionally, three popes and their Holy Offices officially confirmed this absolute consensus in the 17th century against a few men who, because of their own misguided convictions, sought to depart from that consensus, making the attempt in the wake of unproven scientific claims with the express purpose of reinstating a novel and subjective interpretation of Holy Writ.

As we have seen, even many years after modern science began to treat heliocentrism as a scientific fact, the Catholic faithful still maintained their vigilance for geocentric doctrine. It has only been in the last one hundred years or so that this consensus has waned.

Because of the waning consensus, some objectors might themselves appeal to the principle of *Lumen Gentium 12* and posit that the Holy Spirit is now teaching the “People of God” that heliocentrism has been correct all along. But that notion, of course, is impossible, since the “People of God” could not have been “aroused and sustained by the Spirit of truth” into believing that geocentrism was correct for 1900 years and then have the Spirit suddenly change His mind to teach them the opposite. It would make the Holy Spirit a liar, which is certainly impossible. The reality is, if the “People of God” were led to believe geocentrism was the truth, and which was, according to the stipulations of *Lumen Gentium 12*, “guided by the magisterium” to confirm their consensus, then there is simply no

²⁸³ *The Documents of Vatican II*, Austin Flannery, O.P., NY: Costello Publishing, 1975, p. 363.

possibility a change in their belief could be understood as a movement of the Holy Spirit. And if it is not the Holy Spirit, it must be a movement of the devil.

Fr. Robinson: This incompatibility between a literal, scientific reading of Biblical passages like Genesis 1, and the actual facts of the created world presents an apparent dilemma for believers. It seems to force them to either accept the Bible and reject the facts, or reject the Bible and accept the facts. In reality, however, one can easily both accept the facts and accept the Bible, by reading such passages in a non-scientific sense. (p. 249).

R. Sungenis: No, there is no dilemma for the believer who trusts in the Bible and also wants to consider the conclusions of modern science. All he needs to do is scrutinize the claims of modern science and then separate the beneficial claims from the bogus claims. Fr. Robinson himself does this very thing when he considers the claims of modern science on evolution a bogus claim. As we will see, he should have done the same thing when he considered modern science's claims concerning radiometry and sedimentology. He should have seen they were speculative at best, and at worst, a totally biased interpretation of the data.

Likewise, on the previous page (248), again, without any critical study of the issue before he wrote his book, Fr. Robinson assumes the firmament of Genesis 1:6-9 is a hard dome over a flat Earth, but it can be shown quite easily it is not; and it is also easy to show the ancient Hebrews did not believe in a hard dome on a flat Earth. As noted, a thorough exegesis of the Hebrew *raqiya* shows the firmament is inner and outer space. Moreover, ancient Mesopotamian texts do not picture the Earth as flat with a dome. But since Fr. Robinson and most SSPX priests are ignorant of ancient Hebrew and ancient Mesopotamian texts, as well as never doing an in-depth study of the Bible on this subject, they are not well-equipped to reach the right conclusions. Rather, Fr. Robinson's solution is to read Genesis 1 non-literally so that it won't interfere with his already made-up mind about what the Bible teaches; and his already made-up mind about what science teaches.

Fr. Robinson: Implicit in this limitation is a restriction on the Bible's scope. The Bible is at the service of Catholic teaching; it is ordained to

manifest what is necessary for salvation. Everything else falls outside of the Bible's scope.

R. Sungenis: As we can see, Fr. Robinson is from the liberal school of Catholic biblical hermeneutics. He follows the liberals coming out of Vatican II (ironic for the SSPX) that the Bible is not inspired and inerrant when it speaks of history, the cosmos, chronology, geography, *etc.* For Fr. Robinson, these subjects are “outside of the Bible’s scope.” Where did he get such vital information (and, indeed, it is vital, since about 85% of the Bible would be outside the “scope” of salvation, since most of it is history or historical narrative, with a good measure of teachings on morality)? He doesn’t tell us, but anyone who has studied the work of Catholic liberal factions coming out of Vatican II knows it comes from their attempt to make *Dei Verbum’s* phrase “for the sake of our salvation” into a “limitation” or “restriction” on the Bible’s inspiration and inerrancy. Rest assured, there is no official Catholic doctrine that says the phrase “for the sake of our salvation” limits the Bible’s inerrancy; and there is no official Catholic doctrine that says the Bible’s “scope” is limited to salvation. It only comes from the minds of people, like Fr. Robinson, who impose their own designs and limitations on the Bible, and they do it for one purpose, namely, so they can fit their own ideas into Catholic thinking.

The Correct way to read *Dei Verbum* 11 is to understand everything in the Bible was written “for the sake of our salvation,” and thus the whole Bible must be inspired and inerrant. For example, someone might claim the genealogies in Genesis 5, 11, 1Chr 1-10, Matt 1 and Luke 3, are just mundane and unnecessary details of history that are not related to or speaking of salvation and thus conclude they are not protected by the Holy Spirit from error. But the inescapable fact is, those genealogies lead right to Christ, showing Christ was a real, historical person. If he wasn’t a true historical person then we would have no Savior. Hence the history of the Bible sets the stage for the salvation, for it certifies by its inerrant record of genealogical history that the man who died on the cross in 33 AD was the same person who was consistently identified as the Messiah in the Bible’s historical narratives and prophetic utterances. By the same token, if Genesis erred in telling us that Isaac was the son of Abraham, we would have no Savior, since the bloodline of Christ would be untrue. This is the

very reason Bellarmine argued against Galileo and told him it was just as important the Bible be without error in saying Jacob had twelve sons as it was to say Christ rose from the dead. Both passages are put in Scripture “for the sake of our salvation” since if either one of them erred we would have no salvation. In the end, every fact of the Bible is necessary for our salvation, not only because its history leads directly to the person identified as Christ, but also, as we noted earlier, because if the Bible errs in one place, it can err in another, whether the passage speaks about Christ dying for our sins or that St. Paul took a boat ride to Asia minor. There is no escaping of this fact.

Fr. Robinson: As for the rest of Catholic teachings, there is no need to have recourse to facts of physics or astronomy to support them, and so no need to hold that the Bible wishes to teach such facts. (p. 249).

R. Sungenis: This is at best a half-truth, and a half-truth, as the saying goes, is as good as a lie. First, nowhere does the Catholic Church officially teach the Bible contains no facts of “physics or astronomy” or anything having to do with science. This is merely an imposition that liberal interpreters wish to place on the Bible so they can eliminate the Bible from any influence on their concocted theories. The truth is, the Bible sometimes touches upon areas of science and it usually does so in a macro-way, not in a micro-way. Most often, the Bible will reveal scientific facts in order to use them as an analogy to describe God’s actions or his character. For example, the Bible tells us the stars in the heavens are far above the Earth (*cf.* Jr 31:37; Is 55:9; Ps 103:11-12; Job 22:12-14). God uses this scientific fact as an analogy of his greatness, his love, and his longsuffering. In the same way, the Bible insists upon the Earth’s immobility and then uses it as an analogy to God’s immutability (Ps 93:1-2). The Bible describes the direction of air and water currents on the Earth, which paths modern science itself has verified, which are then used to portray the universe’s continuity and stability (Ec 1:6-7). It tells us how the Earth is situated in space by unseen forces that follow our understanding of gravity and inertial forces (Jb 26:7; Ps 8:8); it tells us the shape of the Earth and thus explains how it operates (Is 40:22); it tells us the heavens and earth are wearing out and thus follows the known laws of thermodynamics (Is 51:6; Ps 102:25-26; Hb 1:11). It tells of the water cycles on Earth (Ec 11:1). It tells us the stars are all different (1Co 15:41)

and uses this scientific fact to tell us we will be individually recreated at the resurrection. It tells us the best dimensions to make a ship strong, with a ratio of 30:5:3, enough to be stable in the most turbulent conditions (Gn 6-9). It tells us that air has weight (Jb 28:25), something that science itself didn't recognize until the 16th century AD. It tells us there are hot water springs in the oceans (Jb 38:16). It tells us there is water above the heavens (Ps 148:4), which fact corresponds to Gn 1:6-9.

In other ways the Bible is way ahead of science, even though it might not spell it out in scientific language. For example, the Bible explains why the latest scientific studies of the human genome reveal we are all the product of a single pair of humans (Gn 1:25-26), which is against the theory of polygenism that evolution needs. The Bible explains how death originated (Rm 5:11-12). It explains why different species cannot reproduce (Gn 1:20-24). It explains why 85% of its surface is sedimentary (Gn 6-9). It tells us in Acts of 32 countries, 54 cities, and 9 islands, without a single mistake. It tells us of civilizations (the Hittites) that modern archeology didn't discover until recently but which was previously ridiculed as a "biblical error" (Gn 23:3).

We could go on and on. The Bible is chock full of scientific tidbits on almost every page we look. Granted, the Bible is not a science book, since its main story is salvation history. But as we can see very easily, the Bible will often use scientific facts to either enhance or explain how God works throughout salvation history, and when the Bible uses these scientific facts it is just as inerrant as when it speaks directly of how salvation is procured. As such, to claim the Bible is inaccurate when it speaks on science reflects directly on the veracity of the salvation history. If the Bible is wrong on the scientific facts it uses as analogies to salvation history, then the salvation history is just as prone to error. To attempt to confine the Bible's integrity to merely salvation and disregard the history and relegate it as man-made is to reject both the salvation and the history.

Fr. Robinson: The second limitation Catholics place on the Bible's meaning comes from the side of reason, and is expressed in the fundamental exegetical principle of the Fathers of the Church: 'it is not lawful to depart from the obvious literal sense, unless reason prohibits it or some necessity forces us to leave it.' This principle indicates a

balanced flexibility in the reading of the Bible. God is presumed to have intended the direct sense of the text as being the Bible's meaning. If that direct sense, however, is shown to be erroneous by information outside the Bible, that sense cannot be God's meaning, since God is truth. In this way, natural knowledge can play a negative role in the reading of Scripture, by excluding certain readings from being God's intended meaning. In the words of Fr. Chaberek,

In the Catholic tradition, if a truth of natural knowledge is duly proven, it has to be accepted as a criterion of interpretation of Holy Scripture...a well-established scientific theory [can be] a criterion by which the Bible is to be interpreted. (p. 250).

R. Sungenis: It is apparent that both Fr. Robinson and Fr. Chaberek are quite confused. First, Chaberek says "a truth of natural knowledge is duly proven," but then changes it to "a well-established theory." But something "proven" is not a "theory," even if it is a well-established theory. It will remain a theory until there are irrefutable proofs discovered that confirm it is proven. So unless a scientific theory has risen to the level of proof, it cannot be used as "criterion by which the Bible is to be interpreted." Sorry to say, there are few, if any, scientific theories that have risen to the level of being "proven." In fact, I can't think of even one that has been proven, if by "proof" we mean there is no other possible means to explain it. The reason is there are multitudinous ways of interpreting the scientific evidence, and man is very limited in his ability to sort out the true from the false, not only because he is finite, but because he is often influenced by his philosophy, religion, fame, fortune and his particular "worldview," as Fr. Robinson likes to put it. Let's take Fr. Robinson's dependence on radiometry as an example. Fr. Robinson believes radiometry provides "proof" the universe is very old, billions of years old. So we did a detailed study into the science of radiometry. We found that interpreting the radiometric evidence as supporting long-ages is about as far from proof as one could be. It is all speculation, and most of it is driven by an insatiable desire for evolutionists to have evidence for long-ages. Not only are the results highly erratic and inconclusive, the secular scientists have a nasty habit of disposing of evidence that doesn't agree with their already made-up minds. We found the same in our investigation of sedimentology. We have been taught for years by evolutionists and long-agers that sediments

deposit vertically, but recent evidence from many scientists over many countries shows this is completely wrong, and therefore the geologic column they have been using to date the Earth is completely wrong. The evidence actually shows the Earth is quite young.

Fr. Robinson challenges us that...

God is presumed to have intended the direct sense of the text as being the Bible's meaning. If that direct sense, however, is shown to be erroneous by information outside the Bible, that sense cannot be God's meaning, since God is truth. (p. 250).

Notice how Fr. Robinson uses the word "information" instead of "proof." At least Fr. Chaberek referred to "knowledge that [is] duly proven." If it was Fr. Robinson's intention to limit the evidence to "information" such that any popular opinion of modern science must be accepted to judge the Bible, then he is wholly and totally wrong. Fr. Robinson is not allowed to use just "information" from modern science. He must have positive irrefutable proof. No conjectures, no guesses, no estimations, no theories, no possibilities, no suppositions. If he doesn't have proof, he doesn't have anything, and the "direct sense of the text as being the Bible's meaning," that is, the literal sense, stands as God's meaning until if and when Fr. Robinson can prove otherwise, not suspect or guess otherwise.

I challenge Fr. Robinson to show us one scientific explanation of the evidence that has been proven, beyond the shadow of a doubt; irrefutable among all the world's scientist. If he can't find one, then his whole hermeneutic of the Bible must be rejected.

Let me give one example of the conundrum Fr. Robinson has created for himself. Let's look at gravity. We've all felt it and seen it in action. Unless our eyes are deceiving us, it is a fact that when I let go of my pen, it is going to fall to the floor.

But the task of science is a little harder. It must show us how and why my pen falls to the floor. It won't be sufficient to say, "well, because the Earth is pulling the pen." Why? Because we don't know it is a scientific fact. The pen could be pushed from above for all we know, and there are many

theories of gravity currently held that believe gravity is a push instead of a pull.

Even if we were to agree it is a pull, what mechanism is causing the pull? There are many theories as to how it happens, but the truth is that no one in all of “science” history has been able to demonstrate how the pull works. No one. Not Newton, not Einstein, not anyone.

So here we have one of the simplest and most common occurrences in the universe—gravity—yet no one has been able to demonstrate, much less prove, how it works. All we can do is measure how fast it makes an object fall.

The sad fact is, this is the case for most, if not all, that occurs in the universe. We have educated guesses and mathematical models of what may be occurring, but no one knows for sure, and no one has any proof their explanations are correct. This is the nature of science. As physicist Richard Feynman once said,

Scientists...are used to dealing with doubt and uncertainty. All scientific knowledge is uncertain....Science alone of all the subjects contains within itself the lesson of the danger of belief in the infallibility of the greatest teachers in the preceding generation....Learn from science that you must doubt the experts...Science is the belief in the ignorance of experts.²⁸⁴

Or as scientist Lewis Thomas put it in 1993:

Science is founded on uncertainty. ...We are always, as it turns out, fundamentally wrong...The only solid piece of scientific truth about which I feel totally confident is that we are profoundly ignorant about nature. ...It is this sudden confrontation with the depth and scope of ignorance that represents the most significant contribution of twentieth-century science to the human intellect.²⁸⁵

²⁸⁴ Richard, Feynman, *The Meaning of it All: Thoughts of a Citizen Scientist*, 1998, p. 26; Feynman, *The Pleasure of Finding Things Out*, 1999, p. 188; *ibid.*, p. 187.

²⁸⁵ Lewis Thomas, “On Science and Certainty,” *Discover Magazine*, 1980, p. 58.

In fact, as much as Fr. Robinson refers to “reason” as the other half of how we should arrive at biblical interpretations, Fr. Robinson’s reason should tell him that science isn’t capable of coming to a place in which its theories are provable. Since human science is not only finite but fallible, man can never be certain he has arrived at a proof, since someone else may come along, as happens about every 50-100 years, and do an experiment that totally refutes the previous theory. There is no way out of this dilemma for man. As Einstein once admitted: “No amount of experimentation can ever prove me right; but a single experiment can prove me wrong.”²⁸⁶ But the Bible’s facts never change, and that’s because it is a supernatural revelation provided by someone who is infinite and infallible.

So, for any pope or Father to say we must hold on to what the Bible says unless reason tells us otherwise was only said out of gratuity, not because any pope or Father had solid proof that science has found something it can use as proof to refute the Bible.

Interestingly enough, Cardinal Bellarmine did the same to Fr. Foscarini and Galileo. He once told them that if they could find proof of their heliocentric theory, then we would have to change our interpretation of the Bible. But, Cardinal Bellarmine, as wise as he was, was merely being gratuitous to the two gentlemen, as all Galileo historians agree.²⁸⁷ He knew they would never find any proof, and this is precisely why he went on to condemn heliocentrism as a formal heresy, under the approval of Paul V, long before he gave either Foscarini and Galileo time to demonstrate any so-called proof. That’s because Bellarmine knew the limitations of science. It can have many theories, but it can’t prove anything.

²⁸⁶ Cited in Alice Calaprice’s, *The Expanded Quotable Einstein*, p. 315.

²⁸⁷ Ernan McMullin, an esteemed Galileo historian, admits: “And let there be no mistake, the judgment of the qualifiers in 1616 and the language of the decree supported by it were couched in definitive terms; it was not proposed as something ‘reformable,’ to use a term favored by some recent theologians. The decree did not say that in the absence of a demonstration, maintaining the Copernican theses would be risky (‘temerarious’). It described the theses as ‘contrary to Scripture,’ period, just as the qualifiers had ‘qualified’ the heliocentric claim as ‘formally heretical’” (“The Church’s Ban on Copernicanism,” in *The Church and Galileo*, p. 159).

Fr. Robinson: These two rules strike a middle ground between faith and reason, preserving on the one hand the doctrine that Scripture cannot err, and on the other the doctrine that there cannot be two truths, one for faith and one for reason. If Scripture, according to its literal sense, says that there is a roof above the Earth, and meanwhile our senses tell us that there is no such roof, then our conclusion is clear: ‘If a literal interpretation is really and flatly contradicted by an obvious fact, why then we can only say that the literal interpretation must be a false interpretation.’ (pp. 250-251).

R. Sungenis: But all this does is demonstrate *my* point, not Fr. Robinson’s. If there is a literal interpretation of Genesis 1:6-9 that claims there is a roof over the Earth, and we know from observation that there is no roof, then it means *that particular literal interpretation* is not correct, but it does not mean there is not another literal interpretation that is correct.

Fr. Robinson would like to confine it to one interpretation, and that is because he has an agenda to add in long-ages and the Big Bang into our collective understanding. In fact, there wasn’t one Father of the Church who interpreted Genesis 1:6-9 as being a roof over a flat Earth.²⁸⁸ So where is Fr. Robinson getting the idea it was a roof? Well, the only thing his book shows is a picture of what a dome over the Earth would look like, with a caption saying,

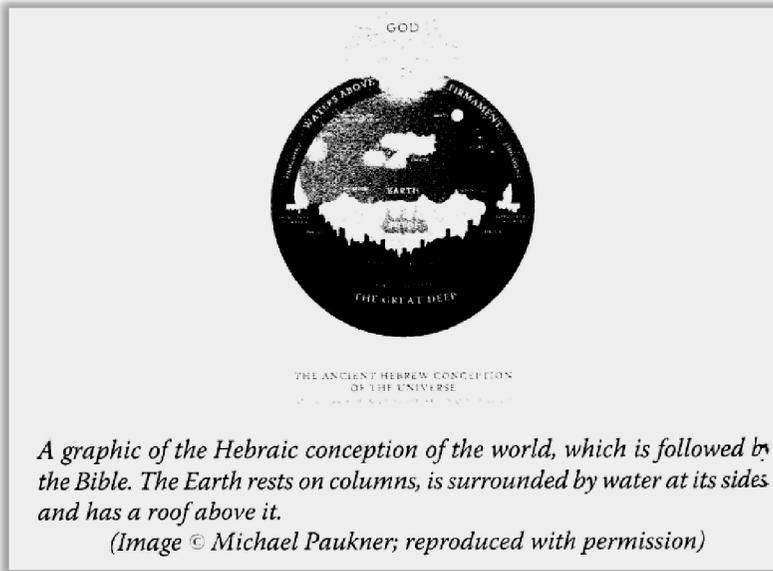
A graphic of the Hebraic conception of the world, which is followed by the Bible. The Earth rests on columns, is surrounded by water at its sides, and has a roof above it. (Image © Michael Paukner; reproduced with permission)²⁸⁹

But how does Fr. Robinson know, or even prove, that this picture is the “Hebraic conception of the world,” and second, how does he know this picture is “followed by the Bible”? The simple answer is, he doesn’t, not by a long shot. He just assumes it is the case without providing us the slightest evidence. This is nothing but shoddy scholarship, especially since

²⁸⁸ See my book: *Flat Earth/Flat Wrong*, CAI Publishing, Inc., 2018 at www.flatearthflatwrong.com

²⁸⁹ For the record, Michael Paukner is not a scientist or a historian, but simply a person who creates graphics. His home page says, “Michael Paukner is a graphic and information designer based in Vienna, Austria” (<https://www.substudio.com>)

he is using the depiction of a flat Earth with a dome as the single most illustrative proof of the reason he is going to reject the Bible's historical narratives.



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Fr. Robinson is not alone in his specious statement that the Hebrews considered the Earth flat with a dome over it. It comes directly out of the pages of liberal scholarship. Their purpose in doing so is to make the biblical narrative of Creation into a pseudo-historical understanding of the world so that they can then dismiss it as a made-up fairy tale and replace it with their own version of how the world came to be and now functions (e.g., evolution and long-ages after a Big Bang). As we noted earlier, the “scholarship” they produced to support their view purports that the ancient Hebrews copied from ancient Mesopotamian texts, and did so rather late in Hebrew history. Conversely, Wayne Horowitz, in his published book from his Ph.D. dissertation, *Mesopotamian Cosmic Geography*, reveals not only were the Mesopotamian accounts quite diverse, the idea of a dome over the Earth “has no direct evidence.” The flat Earth/dome concept came from nothing but the biased and agenda-driven motive of liberal scholars who purposely tried to discredit the Bible. In fact, not only has the

²⁹⁰ *The Realist Guide to Religion and Science*, p. 248.

Mesopotamian source for a flat Earth/dome been discredited, so has the supposition that the Mesopotamian literature preceded the Hebrew tradition and its writing. (Please consult the earlier pages of this book where I discuss these two developments).

Fr. Robinson: Catholics, as we have seen, are required to believe that God created the entire universe, bringing it into existence at a specific time some moment in the distant past. They are not, however, required to hold any particular dogma regarding aspects of the way God brought things into existence, in relation to: time: whether God created everything in an instant, in six days, or in intervals over billions of years; periods: the number of stages in which God created the universe, whether it be in a single stage, the six stages described in Genesis 1, or more stages; order: what God chose to create in each stage, such as plants first, then animals, or vice-versa. (p. 251).

R. Sungenis: First, we must remark on Fr. Robinson's selective use of the word "dogma." Normally, when the Church uses the word "dogma" She is referring to the highest truth value that She puts on a given fact or idea. Depending on who you ask, there are between seven to ten 'truth levels' the Catholic Church has adopted over the centuries. Something reaches the highest level when the Church decides, usually after some controversy, to place a truth at the highest level so there will be no more controversy, which is the normal understanding of the word "dogma." What She is basically saying is, this level has the highest degree of certainty and no one can question the issue any longer. The Assumption of Mary and the Immaculate Conception were two such dogmas that were decided by a third dogma, the infallibility of the pope when he declares doctrine in a specified manner.

But the basic question persists as to what else, precisely, the Church has designated as "dogma," the highest level of certainty, since the Church herself has not officially given us a "dogmatic list" of the dogmas it maintains.

Second, even if a doctrine of the Church is on a lower level of certainty, it does not mean the doctrine is either untrue or not to be obeyed. What it means, basically, is that one cannot be condemned to eternal punishment if one has mental reservations about the doctrine, but he is still required to

assent to the doctrine and obey it. Since the Church's responsibility is the salvation of souls, She must ordain the limits a parishioner is permitted to doubt a given truth before that person risks his very salvation.

Odd as it may seem, the words "infallible" or "irreformable" are not used in dogmatic proclamations. Even the four criteria for papal infallibility established in the decree of Pius IX in 1870 do not make it foolproof for the cleric or the layman to determine when, precisely, a given papal teaching is infallible, since the doctrine in question, ironically, is never preceded by the explicit words: "This teaching is an infallible and irreformable declaration of the Catholic Church for it fulfills all four criteria of the doctrine of papal infallibility." Adding more fuel to the debate, the 1983 Code of Canon Law states that if the Church does not explicitly declare a doctrine infallible, then it is not to be considered infallible.²⁹¹ The whole process can easily become a quagmire of distinctions and counter-distinctions that turn that which was at first intended to be a simple help for the difficulties of life into tedious, hair-splitting legalese that often confuses more than it clarifies.

The four criteria for papal infallibility are delineated in prose form in the following paragraph of Vatican I (numerals in brackets are added):

...the Roman Pontiff, when he speaks *ex cathedra*, that is, [1] when carrying out the duty of the pastor and teacher of all Christians [2] in accord with his supreme apostolic authority [3] he explains a doctrine of faith or morals [4] to be held by the universal Church...²⁹²

As noted, questions of when and where these four criteria are applicable continue to raise problems. For example, the recent teaching against artificial contraception given by Pope Paul VI in 1969 in the encyclical *Humanae Vitae*, and the teaching against women's ordination given by John Paul II in 1994 in the letter *Ordinatio Sacerdotalis*, have raised continued questions whether those two teachings are formally infallible. If

²⁹¹ 1983 Code of Canon Law states: "No doctrine is understood as defined infallibly unless this is manifestly evident" (Canon 749.3). The 1917 Code of Canon Law put it this way: "Nothing is understood to be dogmatically declared or defined unless this shall be manifestly certain" (Canon 1323).

²⁹² Denz. ¶ 1839.

they are infallible, the documents themselves do not explicitly say so. Although at least the latter uses language that some might interpret as the formula of words often associated with an infallible declaration, still, there remain doubts due to the fact that the pope who issued them never declared them explicitly infallible (see Code of Canon Law, ¶ 749.3).²⁹³ If they are not formally infallible, then they are technically “reformable.”

At this point, advocates for the infallibility of the above documents (*Humanae Vitae* and *Ordinatio Sacerdotalis*) will sometimes retreat from depending on *papal* infallibility and make an appeal to the *inherent* infallibility of the “ordinary magisterium” or the “constant teaching of the Church” as the authoritative basis for declaring these two doctrines infallible. Although legitimate, this appeal, however, has its own set of problems, since it is open to the subjective judgment of clerics or laymen on a much lower level of authority than the pope, and thus, it invariably creates diverse opinions as to which specific traditional Church teachings are infallible and which are not. If it is not infallible, but merely authoritative, many feel that, although they could give “assent” to the teaching, they are not bound to obey it if, for the sake of conscience, they find it unacceptable. At this point, some may appeal to other papal statements (Pius XII’s *Humani Generis*),²⁹⁴ the Code of Canon Law,²⁹⁵ or

²⁹³ In fact, a few months after the issuance of *Ordinatio Sacerdotalis*, Cardinal Joseph Ratzinger was approached by various bishops questioning whether the document was infallible. Ratzinger affirmed that it *was* infallible. This, however, creates two problems: (1) it shows that the document did not contain explicit and unequivocal language declaring its infallibility, and (2) the affirmation of its infallibility came from the head of the Congregation for the Doctrine of the Faith, not the pope who wrote the document, thus making the affirmation of the document’s status dependent on a fallible, although respected, opinion.

²⁹⁴ *Humani Generis* states: “Nor must it be thought that the things contained in Encyclical Letters do not of themselves require assent on the plea that in them the Pontiffs do not exercise the supreme power of their Magisterium. For these things are taught with the ordinary Magisterium, about which it is also true to say, ‘He who hears you, hears me.’ [Lk 10. 16]...If the Supreme Pontiffs, in their acts expressly pass judgment on a matter debated until then, it is obvious to all that the matter, according to the mind and will of the same Pontiffs, cannot be considered any longer a question open for discussion among theologians.”

²⁹⁵ Canon 752: “Although not an assent of faith, a religious submission of the intellect and will must be given to a doctrine which the Supreme Pontiff or the college of bishops declares concerning faith or morals when they exercise the

conciliar statements (e.g., Vatican II's *Lumen Gentium* 25) and insist that we are obligated to obey.

In the end, Fr. Robinson's appeal to "dogma," undefined as he left it, doesn't really advance the discussion, especially since there are many other ways the Church has chosen to reveal the truth of something other than putting it on the highest level of certainty. In light of this, let's examine Fr. Robinson's assertions as to what we are not required to believe.

- "time: whether God created everything in an instant, in six days, or in intervals over billions of years." (p. 251).

Notice how Fr. Robinson slips in "billions of years" into the sentence. We know from the Fathers that "day" can refer to one instant (per Augustine's second interpretation, although it was derived from his erroneous interpretation of Sirach 18:1) or six literal days (the remainder of the Fathers), but where did the Fathers ever entertain the idea of "billions of years"? Not one of them did. So where in the tradition or Scripture is Fr. Robinson getting this idea?

We also know the 1909 Pontifical Biblical Commission said that exegetes could interpret the word "day" as "twenty-four hours" or "a certain period of time," but the Commission never said or implied the "period" could extend for billions of years. The tradition gives us two choices: (1) six days, or (2) one day. There was nothing else discussed or contemplated. In this light, let's look more closely at the PBC's 1909 statement:

The 1909 Commission stated the following:

Question VIII: Whether in that designation and distinction of six days, with which the account of the first chapter of Genesis deals, the word (deis) can be assumed either in its proper sense as a natural day, or in the improper sense of a certain space of time; and whether with regard

authentic magisterium, even if they do not intend to proclaim it by definitive act; therefore, the Christian faithful are to take care to avoid those things which do not agree with it."

to such a question there can be free disagreement among exegetes?—
Reply: In the affirmative.²⁹⁶

First, we must understand the Commission has essentially declined to answer the question. That means the Church has declined to give an official answer to whether the days of Genesis are 24-hours or not. At this juncture (1909), it is all about what is legal and not legal, not about what the text of Genesis 1 actually teaches. Accordingly, the only thing the 1909 PBC decided was exegetes are free to use the proper or improper sense in their books and articles, and that means they can do so without canonical retribution from the Church. *That single legal issue* was the only question the PBC answered.

Unofficially, however, the Church had been teaching for quite a while that the days of Genesis 1 were 24-hour periods, since the preponderant evidence from the Fathers and medievals tells us so. So, the burden is certainly on the “exegete” who seeks to go against that consensus.

In any case, the 1909 Commission was not advocating the theory of evolution or a day in Genesis 1 comprises billions of years. Even the best opposition to a 24-hour day, which is Augustine’s second theory, doesn’t allow for evolution since, in the second theory Augustine said the whole creation was created instantaneously. As such, the Church had never advanced the concept of evolution or billions of years, at least not in 1909. In fact, evolutionary theory had been virtually silenced by the Church, as was the case about 50 years earlier in 1860 when the Council of Cologne condemned the idea of human evolution in very straightforward words:

Our first parents were formed immediately by God. Therefore we declare that those who assert man emerged from spontaneous continuous change of imperfect nature to the more perfect, is clearly opposed to Sacred Scripture and to the Faith.

Yet we must still deal with the fact that Scripture may sometimes use the word “day” in reference to an indefinite period of time. For example, Isaiah 4:2 says:

²⁹⁶ Denzinger, ¶ 2138.

In that *day* the Branch of the Lord will be beautiful and glorious and the fruit of the earth will be the adornment of the survivors of Israel.

Perhaps this passage is suggesting more than a 24-hour period, since the Lord's glory is to go on indefinitely. But that is not necessarily the case. "That day" could refer to the actual 24-hour day the Branch of the Lord appeared and was beautiful and glorious (*e.g.*, Mt 1:25: "and she brought forth her firstborn son"). The remaining days the Branch was beautiful does not negate the fact that the beauty started on a particular day. As such, the passage is ambiguous, and perhaps decidedly so.

So what was the 1909 Biblical Commission to do? In light of the other Scriptures that possibly use the word "day" in an indefinite sense, perhaps the Commission thought it really had no choice but to affirm the Hebrew word יום (YOM), in itself, could sometimes be translated as an indefinite period of time. In fact, there are five different ways YOM is used in Scripture, as we do also in English.

The basic question, however, is whether Genesis 1 is using any of these less-than-literal meanings of YOM? We have already answered that question from the text of Genesis 1 (*e.g.*, "evening and morning" is one 24-hour day). Someday the Church may decide to make it official, as She should with other doctrines believed and practiced by the ancient Church, such as the prohibition of usury, the wearing of head coverings for women, the full inspiration and inerrancy of Scripture, and a few other doctrines.

Further, in its 1909 statement, we notice again the Commission only felt compelled to answer the *legal issue* and not get into the finer points of biblical exegesis, since it did not comment on the other important time-clues in Genesis 1 that were traditionally understood as 24-hour periods. For example, the Commission never said that the phrase "evening and morning," which is repeated six times in Genesis 1 for the ending of the six days, could be taken in a "less strict" or figurative sense, since Scripture never offered them any cases in which that phrase was used in a non-literal way. "Evening and morning" is very specific, and as such, it is used less than a dozen times in Scripture. In contrast, the Hebrew word YOM is used over 2000 times in Scripture, and it is inevitable that with

that extensive semantic domain it is going to have various shades of meaning, even as we have in English.

So, if someone wants to claim that, because the 1909 PBC allowed exegetes to interpret YOM as either 24-hours or a certain period of time, they have the canonical right to interpret the day of Genesis as something other than 24-hours, and they can do so without being suspect of heresy. But this doesn't mean, of course, that a non-24-hour interpretation is correct or even the best interpretation of the text. It only means that someone will not be canonically liable if he decides against a 24-hour interpretation.

As such, if the 1909 PBC wanted to give more than a legal answer to the question of whether one could use YOM in its improper sense, it would have added the preponderant and traditional answer that YOM is a 24-hour day in Genesis 1, since not only was 24-hours the consensus of the Fathers (save Augustine's "one day" alternative, although he never relinquished the 24-hour interpretation), but the phrase "and there was evening and morning" in Genesis 1 directs us, out of all five possibilities for the meaning of YOM, to interpret it as a 24-hour period, since "evening and morning" occurs only within that specific time frame.

The 1909 PBC was also confronted with the warning given to scientists and exegetes from Pope Leo XIII in *Providentissimus Deus* in 1893, namely, that we are obliged to interpret Scripture literally, in its plain and ordinary meaning, unless there is a necessity to the contrary. The Commission also knew the boasts of modern science are often overturned. We know this especially today, more than they did in 1909.

In the end, the purpose of the 1909 PBC statement was not to teach the finer points of biblical exegesis or to examine the claims of science, but to give a stop-gap answer to the pressing legal question before it, and thus to defer the correct answer of what, precisely, YOM means in Genesis 1 to a future canonical decision from the Church. Often the Church works very slowly since it has so many pressing issues before it. Often its grassroots parishioners and its theologians are way ahead of the Church on certain

issues, but the Church will address and finalize them only when the time is right.²⁹⁷

In the final analysis, any exegete who comes to the text of Genesis 1-2 claiming the events did not happen as recorded would necessitate him showing he possessed some kind of all-knowing perspective from which to judge the validity of the text's propositions. If the exegete were to de-literalize every Scripture that posed an apparent conflict if read at face value, much of the Bible would become historically useless. For example, if the critiques levied against a literal interpretation of Genesis 1 were applied to the account of the plagues of Egypt in Ex 8-10, the latter would present even more problems. Ex 9:6 records that all the cattle of Egypt died in the fifth plague, but according to Ex 9:19 more cattle were to be killed in the seventh plague. According to Ex 8:24, the insects of the fourth plague destroyed all the plants of Egypt, but in Ex 9:31 the flax and barley were destroyed in the seventh plague, while in Ex 10:15 the locusts of the eighth plague eat the remaining vegetation. Whatever the exact chronology, it is not the prerogative of the exegete to conclude these apparent conflicts bar a chronological reading of the text in favor of a thematic one. Instead, the exegete must carefully compare the various accounts in Scripture and work out a viable chronology, for Scripture does not err.

Fr. Robinson: periods: the number of stages in which God created the universe, whether it be in a single stage, the six stages described in Genesis 1, or more stages. (p. 251).

R. Sungenis: Again, Fr. Robinson slips in the phrase "more stages" but he presents no Tradition and no Scripture and no official decision from the Magisterium to back it up, and therefore it should be rejected by any honest exegete.

Fr. Robinson: order: what God chose to create in each stage, such as plants first, then animals, or vice-versa. (p. 251).

²⁹⁷ See also my paper: *Biblical Reasons to Doubt Justin Taylor's: "Biblical Reasons to Doubt the Creation Days Were 24-Hour Periods,"* at www.theprinciplemovie.com and www.jttcotu.com

R. Sungenis: Again, the “order” is already given to us in Genesis 1:1-31, and neither the Tradition nor an official magisterial statement has allowed a different order. The only thing the Tradition and the Magisterium has allowed is the possibility that “Day” refers to either an instantaneous creation or six days of 24-hours. Anything else is merely an imposition of Fr. Robinson’s.

Fr. Robinson: Up to the eighteenth century, there was not overwhelming evidence against a literal understanding of Genesis 1, and so that literal understanding was the majority opinion among Catholics for 1700 years, that ‘God created the world successively in six natural days, namely, each of twenty-four hours, just as the first and direct sense of the sacred texts sets forth.’ (p. 251).

R. Sungenis: I’ve got news for Fr. Robinson: there still isn’t “overwhelming evidence against a literal understanding of Genesis 1.” Fr. Robinson himself admits this partially when he rejects the science of evolution from the exegesis of Genesis 1. The evidence we have is that Fr. Robinson no longer knows how to exegete Genesis 1, without, at least, imposing a flat Earth with a dome on the day the firmament was made, or by imposing the idea, following Fr. Jaki, that there could not have been an initial primordial Light that came before the sun, moon and stars. Fr. Robinson is a member of what has been called “the one-minute theologians,” that is, if they can’t figure out within a minute or two how to follow the chronology of Genesis 1 as it is written, they reject it and opt for the model of secular science that puts the sun, moon and stars before the Earth, in addition to coalescing the original Light with the sun. The “one-minute theologian” may defend himself by remarking how Augustine struggled for years with how to interpret Genesis 1, finally having two interpretations, one opting for a one-day instantaneous creation and the other opting for a six-day interpretation. But I see no such struggle in Fr. Robinson’s writings. He merely rejects Genesis 1 in toto and concludes the only thing it teaches is God created the world. So when he reads Genesis 1 to one of his students, he tells them that nothing beyond “God created the heaven and the earth...” occurred, and that the rest of Genesis 1 from “...and the earth was without form and void, and darkness was on the face of the deep...” never happened, at least the way it is written. At least Augustine was courageous enough to apply each verse with the

chronology afforded to him by the text, since he believed each verse was written under the inspiration and inerrancy of the Holy Spirit. Fr. Robinson seems to believe that each verse was written under the inspiration of Mesopotamian literature.

Second, Fr. Robinson admits the literal interpretation of Genesis was part and parcel with Catholic tradition that stood for “1700 years,” long before we heard even a whimper from liberal Catholic theologians and their insistence on evolution. But evolution wasn’t really advanced even as a theory until the 1800s, so the “1700 years” should actually be “1800 years.” In fact, for Fr. Robinson it should be later than 1800 years, since his evidence for long-ages (*e.g.*, radiometry and the Big Bang), didn’t pop its head out until the 1900s. So the “1700 years” should really be “1900 years.” As it stands, even from Fr. Robinson’s perspective, we have 1900 years of literal interpretation until secular science could even offer a suggestion that Genesis’ six days might not be six literal days.

The upshot is that somehow Fr. Robinson wants us to accept the rather absurd idea that for 1900 years the Holy Spirit led the Church to believe Genesis literally, but suddenly changed His mind; or worse, the Holy Spirit misled the Church into thinking that Genesis was to be interpreted literally when all the while He knew it was wrong. Either way, Fr. Robinson’s view puts the Holy Spirit into a most dubious position. Jesus said the Holy Spirit would lead us into “all truth,” but Fr. Robinson’s Holy Spirit apparently didn’t do His job very well, at least until Fr. Robinson, a member of a group which is considered schismatic by the Church at large, told us the real truth of Genesis 1.

Third, as we saw earlier, *Lumen Gentium* 12 tells us the Church at large cannot err.

The whole body of the faithful who have an anointing that comes from the holy one (cf. 1 Jn. 2:20 and 27)²⁹⁸ cannot err in matters of belief.

This characteristic is shown in the supernatural appreciation of the faith

²⁹⁸ “But you have been anointed by the Holy One, and you all know....but the anointing which you received from him abides in you, and you have no need that any one should teach you; as his anointing teaches you about everything, and is true, and is no lie, just as it has taught you, abide in him.”

(*sensus fidei*)²⁹⁹ of the whole people, when, “from the bishops to the last of the faithful”³⁰⁰ they manifest a universal consent in matters of faith and morals. By this appreciation of the faith, aroused and sustained by the Spirit of truth, the People of God, guided by the sacred teaching authority (*magisterium*), and obeying it, receives not the mere word of men, but truly the word of God (*cf.* 1 Th 2:13),³⁰¹ the faith once for all delivered to the saints (*cf.* Jude 3).³⁰² The people unflinchingly adheres to this faith, penetrates it more deeply with right judgment, and applies it more fully in daily life.³⁰³

So what better qualifies as the *sensus fidei* than a belief in the literal interpretation of Genesis 1 than 1900 years of solid belief in the literal interpretation of Genesis? According to *Lumen Gentium* 12, it would be impossible for the faithful to believe in the literal interpretation of Genesis

²⁹⁹ *Lumen Gentium* 12 adds this footnote: “(The *sensus fidei* refers to the instinctive sensitivity and discrimination which the members of the Church possess in matters of faith. – Translator.)”

³⁰⁰ *Lumen Gentium* 12 adds this footnote: “See St. Augustine, *De Praed. Sanct.* 14, 27: *PL* 44, 980.” This refers to Augustine’s work *Predestination of the Saints*, Book II, Chapter 14: This grace He placed “in Him in whom we have obtained a lot, being predestinated according to the purpose of Him who worketh all things.” And thus as He worketh that we come to Him, so He worketh that we do not depart. Wherefore it was said to Him by the mouth of the prophet, “Let Thy hand be upon the man of Thy right hand, and upon the Son of man whom Thou madest strong for Thyself, and we will not depart from Thee.” This certainly is not the first Adam, in whom we departed from Him, but the second Adam, upon whom His hand is placed, so that we do not depart from Him. For Christ altogether with His members is--for the Church’s sake, which is His body – the fulness of Him. When, therefore, God’s hand is upon Him, that we depart not from God, assuredly God’s work reaches to us (for this is God’s hand); by which work of God we are caused to be abiding in Christ with God – not, as in Adam, departing from God. For “in Christ we have obtained a lot, being predestinated according to His purpose who worketh all things.” This, therefore, is God’s hand, not ours, that we depart not from God. That, I say, is His hand who said, “I will put my fear in their hearts, that they depart not from me.”

³⁰¹ “And we also thank God constantly for this, that when you received the word of God which you heard from us, you accepted it not as the word of men but as what it really is, the word of God, which is at work in you believers.”

³⁰² “Beloved, being very eager to write to you of our common salvation, I found it necessary to write appealing to you to contend for the faith which was once for all delivered to the saints.”

³⁰³ *The Documents of Vatican II*, Austin Flannery, O.P., NY: Costello Publishing, 1975, p. 363.

1 if it was not the reality the Holy Spirit guided the Church to believe. This is precisely how the Immaculate Conception and the Assumption of Mary became dogmas of the Church, since the faithful were led to believe them for 1870 years and 1950 years, respectively, before the Church made them both into dogma. But Fr. Robinson thinks he knows better. He props up his highly equivocal “radiometric” evidence, without the slightest critical analysis of it, and doesn’t give even the slightest concern in his book he might be upsetting the very foundation of the transfer of truth upon which the Catholic Church was built. I can only conclude that Fr. Robinson is not a man to be trusted or followed. His doctrine is an anti-Christian doctrine as it attempts to turn the Holy Spirit into a fabricator.

Fr. Robinson: St. Augustine was a famous exception to this view. He taxed his mind to the utmost on the subject, ultimately writing three commentaries on the first chapters of Genesis by the end of his life. Something that particularly puzzled him was how the light created on the first day could exist without there being light-bearing bodies, which were created on the fourth day. Furthermore, how could this light mark the days and nights of creation, when it is the movement of the sun which indicated day and night? Augustine turned these questions over and over in his mind, looking for a solution. His ultimate conclusions about Genesis 1 were as follows:

According to Scripture (Ecclus. 18:1), God has created all things at once. The six days of creation are a metaphor intended to help our imagination. By a single instantaneous act, God has created out of nothing all the beings which then were, and, in them, all those that have come to be ever since the first instant of creation, as well as all those that still are to come up to the end of the world.

Thus, Augustine began by trying to take the six-day description literally, then found it to conflict with sense observation, as well as a literal reading of another passage of the Bible, and do decided to interpret it figuratively. His motive was to keep the Bible from conflicting with reason. Out of respect for the Bible, he would not attribute to it a meaning that jarred with common sense. The idea that there is a light independent of a light-bearing body does exactly that. Thus, when the Bible speaks of that light, it is not speaking literally. (pp. 251-252).

R. Sungenis: First, the idea there cannot be light unless there is a light-bearing body is an assumption Fr. Robinson makes without evidence or proof. Let's take Fr. Robinson's Big Bang as our proving ground. The "singularity" that is said to be behind the Big Bang is, at best, undefined, but one thing we know for certain: it is not a "body" in the conventional sense of the word, and in any case, it was never understood as a "light-bearing body." After the explosion of the Big Bang, light is said to be produced from the indiscriminate "ionized" matter,³⁰⁴ not from "light-bearing bodies." It is not until billions of years later that Big Bang proponents recognize anything close to a "light-bearing body," namely, galaxies, stars, and our sun. In fact, the CMB (cosmic microwave radiation) is said to be "freely" traveling the universe, which means it does not have a "source" since the source dissipated 13.7 billion years ago.

Secondly, what leads Fr. Robinson to conclude the Light of Genesis 1:3 doesn't have a "light-bearing" source? This is merely another assumption he imposes on the text. In fact, the text implies that not only did the Light have a source, it was a huge source, many times the size of the sun. The firmament, which Genesis 1:8 says are "the heavens"; was "spread out" from the Second Day onward.³⁰⁵ We also know the heavens are very large;

³⁰⁴ https://ned.ipac.caltech.edu/level5/Glossary/Essay_lss.html. "According to the standard Big Bang theory, the early Universe was sufficiently hot for all the matter in it to be fully ionized. Under these conditions, electromagnetic radiation was scattered very efficiently by matter, and this scattering kept the Universe in a state of thermal equilibrium. Eventually the Universe cooled to a temperature at which electrons could begin to recombine into atoms, and this had the effect of lowering the rate of scattering. This happened at what is called the recombination era of the thermal history of the Universe. At some point, when recombination was virtually complete, photons ceased to scatter at all and began to propagate freely through the Universe, suffering only the effects of the cosmological redshift. These photons reach present-day observers as the cosmic microwave background radiation (CMB). This radiation appears to come from a spherical surface around the observer such that the radius of the shell is the distance each photon has travelled since it was last scattered at the epoch of recombination. This surface is what is called the last scattering surface." (P. Coles, *The Routledge Critical Dictionary of the New Cosmology*, Routledge Inc., New York, 1999)

³⁰⁵ Based on the stipulation in Gn 1:8 that "God called the firmament heaven," the term "heaven" is often interchangeable with "firmament." In regard to the "expansion," Jb 9:8 contains the Qal participle מִתְּנֵן which can refer to a progressive "stretching out," and matches the progressive speech in the preceding

and since we know the firmament-heavens divided the water so that some would be above the heavens and some left on Earth (Gn 1:6-9), these facts suggest the water surrounding the Earth on the First Day was a huge ice mass, perhaps millions of miles in diameter. As such, the Light was created after the initial 12 hours of “evening” to surround the whole ice mass for the 12 hours of “morning” in order melt it into water. Hence “there was evening and morning the first day” (Gn 1:5). When the firmament was created and “spread out” on the Second Day, it took most of the water and most of the Light with it, eventually to the outer rim of the heavens, leaving a small portion of water and Light to continue the day/night rhythm, until the sun and stars, which were probably formed from the remaining Light,³⁰⁶ arrived on the Fourth Day to take over the

verse: “the One speaking to the sun, and it does not rise and to the stars he sets a seal.” The same Qal participle appears in Ps 104:2 and Is 42:5 in a similar context of progressive action, whereas Is 44:24 uses the same Qal participle but could refer to a single act or a progressive action. Is 45:12 uses the Qal perfect נָצַח referring to a past act, as does Jr 51:15. In Is 51:13 the Qal participle is coupled with a past act (“founded the Earth”), yet Zc 12:1 uses the Qal participle coupled with two other Qal participles (“founding the Earth” and “forms the spirit of man within him,” the latter of which is a continuing action). All in all, the evidence leans towards the “stretching out” as an event with a definitive beginning in the past but in continual progress, at least for some indefinite period of time, and thus a process that did not cease on Day Two of creation week.

³⁰⁶ So Aquinas in *Summa Theologica*, Bk 1, Ques. 67, Art. 4. Agreeing with Aquinas are the Fathers: Gregory of Nyssa (*Hexameron*, PG 44, 66-118); Ephrem the Syrian (*Genesim et in Exodum commentarii*, in CSCO, v. 152, p. 9); Chrysostom (*Homilies on Genesis* (PG 53, 57-58); See especially, Basil in *The Hexameron*, Homily II, 7; Victorinus in *On the Creation of the World*. Leo the Great stated: “But what is the sun or what is the moon but elements of visible creation and material light: one of which is of greater brightness and the other of lesser light? For as it is now day time and now night time, so the Creator has constituted divers kinds of luminaries, although even before they were made there had been days without the sun and nights without the moon” (Sermon XXVII). Medieval theologians are also of the same opinion: Honorius of Autun (*Hexameron* PL 172, 257); Peter Lombard (*Lombardi opera omnia*, PL 192, 651); Colonna, aka Aegidius Romanus (*Opus Hexaemeron*); Nicholas of Lyra (*Postillae perpetuae*); Cajetan (*Commentarii de Genesis I*). The only opposing view is Origen in *Origen Against Celsus*: “By far the most silly thing is the distribution of the creation of the world over certain days, before days existed; for, as the heaven was not yet created, nor the foundation of the earth yet laid, nor the sun yet revolving, how could there be days?” (Book VI, Ch 60). Other scriptural accounts also indicate clearly that the Light of Gn 1:3 is separate from the sun and stars of

daily rhythm. Since the sun and stars are little more than big balls of fire (e.g., plasma), fire would also be the substance of the Light. If it is true the sun and stars make light by fusing hydrogen nuclei into helium, so the same would be true of the Light of the First Day, thus it has at least one “source.”³⁰⁷ Further, as the Light is diffused throughout the universe as the firmament continued to “stretch,” the Light eventually diffuses into the 2.75 K microwave radiation we see coming from all quadrants of the universe today. At the least, this is a plausible literal interpretation of the chronological sequence as it tries to be faithful to the text as written and avoids inventing theories opposed to the text (e.g., the Big Bang, which claims that the stars and galaxies came before the Earth).

Thirdly, although Fr. Robinson touts Augustine’s alternative interpretation as an example of how one can avoid a literal interpretation of Genesis 1,

Gn 1:14-17. For example, in the book of Job, God interrogates Job with rhetorical questions that he knows Job cannot answer. In chapter 38:18-24 God asks Job:¹⁸ Have you understood the expanse of the earth? Tell Me, if you know all this.¹⁹ Where is the way to the dwelling of light? And darkness, where is its place,²⁰ That you may take it to its territory And that you may discern the paths to its home?²⁴ Where is the way that the light is divided, Or the east wind scattered on the earth?” As for the distinction between light and the sun, various passages testify to this phenomenon. For example, Psalm 74:16 states: “Yours is the day, Yours also is the night; You have prepared the light and the sun.” Ec 12:1-2 prohibits one from concluding that the “light” of Ps 74:16 refers to the stars since it separates it from the sun: Remember also your Creator in the days of your youth...before the sun and the light, and the moon and the stars are darkened.” Notice how the writer mentions all the known luminous bodies that emanate light, but he insists there is still an additional independent source of light. As in Ps 74:16, these four sources are specifically put in sequence by Hebrew *waw*-conjunctions so that it does not say “sun’s light” but the sun and the light and the moon and the stars. In sequence, the Hebrew reads: לֹא־תִחְשַׁךְ (are not darkened) הַשֶּׁמֶשׁ (the sun) וְהָאֵשׁ (and the light) וְהַיָּרֵחַ (and the moon) וְהַכּוֹכָבִים (and the stars). Cf., Ez 32:6-8; Ps 104:2; Is 45: 7; 60:19; Br 3:33; Zc 14:6-7; 2Co 4:6; Ap 22:5; Gn 19:11; Ac 26:13. Some raise the objection that Gn 1:14-16’s assigns the moon as one of the “two lights,” even though the moon merely reflects light from the sun. This can be answered by pointing out that “light” in Genesis 1:14-16 is the Hebrew *meor*, (לְמֵאוֹרֵת) which can refer to an emanating body or reflecting body (cf. Ps 74:16; Pr 15:30).

³⁰⁷ Other theories hold that the sun receives energy from stellar sources by means of electric transfer, otherwise known as the “electric universe” (see <https://www.electricuniverse.info>; <https://www.thunderbolts.info/wp>).

the fact is, Fr. Robinson doesn't believe in Augustine's alternative interpretation, since he neither adopts Augustine's idea that the "Light" refers to the angels nor Augustine's idea that the six-days were for the contemplation of the angels. He doesn't adopt Augustine's idea that the universe was created *all at once*.³⁰⁸ As it stands, he doesn't believe *anything* Augustine said any more than he believes in a literal interpretation of Genesis. So, Fr. Robinson's attempt to ride on Augustine's coattails is disingenuous. What is more disingenuous is that Fr. Robinson doesn't tell his reader that he rejects *both* Augustine's literal interpretation of Genesis *and* his figurative interpretation. Fr. Robinson really wants nothing to do with Augustine, except to use him as his Poster Boy for anyone who wants to give an alternative interpretation to Genesis other than what Genesis actually says.

Fourthly, as Fr. Robinson explains how Augustine adopted his alternative interpretation of Genesis, that is, Augustine understood Ecclesiasticus (Sirach) 18:1 to say that God made the universe instantaneously, does Fr. Robinson give any critical analysis to this conclusion of Augustine as we did earlier when we showed that because Augustine was reading from the Latin, which translation misconstrued the original Greek of Sirach 18:1, he misinterpreted the Latin *simul* for the Greek *koine*? No, not one word of critical analysis comes from Fr. Robinson's pen. It is almost as if Fr. Robinson either isn't aware of this discrepancy between the Latin Bible and the Greek Bible, or, at worst, he knows it but chooses not to say anything to his reader, a reader who desperately needs to know these distinctions if he is going to use the "reason" upon which Fr. Robinson so vehemently insists. As noted, Fr. Robinson's real motive is that he intends on using Augustine as the Poster Boy for alternative interpretation of Genesis 1, but could really care less how Augustine arrived at such a conflated and dubious interpretation. Fr. Robinson isn't the only one. Almost all theistic evolutionists and long-agers appeal to Augustine's "alternative" view of Genesis 1, yet none of them believe a word of

³⁰⁸ Fr. Robinson says: "God did not create everything at once, but rather created some material beings in an initial instant and then progressively added material beings to the universe at later times" (*The Realist Guide to Religion and Science*, p. 252).

Augustine's alternative. I don't know one of them who has stated in his lectures or books he believes, as Augustine did, everything in the universe was created at once or the Light represents the angels and the six-days are the contemplations of the angels. But they all like using Augustine as their Poster Boy when they want to convince the world they have the right to interpret Genesis 1 as allowing a Big Bang and long-ages. In other words, because Augustine had an alternative non-literal interpretation, they believe they can totally abandon literal interpretation and allow themselves to go off into an entirely different interpretation than the alternative Augustine gave them. In other words, these theistic evolutionists and long-agers are totally disingenuous. None of them have any patristic precedent for evolution or long-ages, but they pretend as if they do.

Fifthly, as much as Augustine worked hard on Genesis 1, the rest of the Fathers, as representatives at large of what was passed down to us from the Apostles, all told us Genesis 1 is to be interpreted as six 24-hour days. Now, if we believe the Fathers at large are the recipients of the oral tradition of the Apostles, it is obvious they received the oral tradition of six literal days. Logically, then, this also means they did not receive any oral tradition the six days were merely a figurative period of time for angel contemplation, or that the Light was really the angels. Simple logic tells us the Apostles could not have given us two different accounts of the Creation story in Genesis 1, one diametrically opposed to the other. Only one truth could have been passed down as the correct interpretation. Since we know of no other Father who even entertained Augustine's view, this leaves Augustine as the odd man out, regardless of how good he was as an exegete in other areas of biblical theology. And we have a good reason why he is the odd man out: he totally misconstrued Sirach 18:1, and that was because he did not know either Greek or Hebrew, the original languages of the Bible. It also appears that Fr. Robinson does not know the Greek or Hebrew of the Bible, and thus he would not be equipped to critically examine where Augustine made his mistake on Sirach 18:1.

Sixthly, although Fr. Robinson tries to make Augustine's struggle with the text of Genesis 1 as a worthy one that produced a legitimate and overriding interpretation to replace the literal interpretation, Augustine himself did not feel that way at all, and here is where we can really admire this saintly

stalwart of the Church. All in all, the reason we can levy these critiques on Augustine's alternative view of Genesis is that he invited such criticism, for he simply wasn't sure about his interpretation. In *The Literal Meaning of Genesis* he writes:

Whoever, then, does not accept the meaning that my limited powers have been able to discover of conjecture but seeks in the enumeration of the days of creation a different meaning, which might be understood not in a prophetic or figurative sense, but literally and more aptly, in interpreting the works of creation, let him search and find a solution with God's help. I myself may possibly discover some other meaning more in harmony with the words of Scripture. I certainly do not advance the interpretation given above in such a way as to imply that no better one can ever be found, although I do maintain that Sacred Scripture does not tell us that God rested after feeling weariness and fatigue.³⁰⁹

In *The City of God*, he is a bit more cautious about his view:

But simultaneously with time the world was made, if in the world's creation change and motion were created, as seems evident from the order of the first six or seven days. For in these days the morning and evening are counted, until, on the sixth day, all things which God then made were finished, and on the seventh the rest of God was mysteriously and sublimely signalized. What kind of days these were it is extremely difficult, or perhaps impossible for us to conceive, and how much more to say!³¹⁰

At many points we find Augustine still vacillating between the literal and spiritual interpretation. For example, regarding the light of the first day he writes in *The City of God*:

And first of all, indeed, light was made by the word of God, and God, we read, separated it from the darkness, and called the light Day, and the darkness Night; but what kind of light that was, and by what periodic movement it made evening and morning, is beyond the reach of our senses; neither can we understand how it was, and yet must unhesitatingly believe it. For either it was some material light, whether

³⁰⁹ Bk 4, Ch 28, No 45.

³¹⁰ *City of God*, Bk XI, Ch 6.

proceeding from the upper parts of the world, far removed from our sight, or from the spot where the sun was afterwards kindled; or under the name of light the holy city was signified, composed of holy angels and blessed spirits, the city of which the apostle says, ‘Jerusalem which is above is our eternal mother in heaven.’³¹¹

At times Augustine seems far from his spiritual interpretation, as it seems here in the *Confessions* (400 AD), written a year before *The Literal Meaning of Genesis*:

For very wonderful is this corporeal heaven, of which firmament, between water and water, the second day after the creation of light, Thou saidst, Let it be made, and it was made. Which firmament Thou calledst heaven, that is, the heaven of this earth and sea, which Thou madest on the third day, by giving a visible shape to the formless matter which Thou madest before all days.³¹²

Fr. Robinson: In between the strictly literal interpretation and the allegorical one, there is a middle ground, which we can call ‘progressive creationism.’ It holds that Genesis 1 is not an exact, historical account of the unfolding of creation, yet at the same time, it does contain historical elements. God did not create everything at once, but rather created some material beings in an initial instant and then progressively added material beings to the universe at later times. This did not happen in six periods of twenty-four hours, not did it happen in the exact order indicated by Genesis 1. Nonetheless, the general framework of Genesis 1, which portrays God as adding to His Creation over time, is correct. (p. 252).

R. Sungenis: So, as we can see, Fr. Robinson has made himself the judge, jury and executioner of God’s word and declares, “Genesis 1 is not an exact, historical account of the unfolding of creation...” The audacity is frightening. Fr. Robinson seems not to have the slightest trepidation in going to places that even angels dare not tread. Who in the history of the Church even contemplated such a disregard for how God chose to write his biblical narratives? No one. They all took God’s word at face value and

³¹¹ *City of God*, Bk XI, Ch 7.

³¹² *Confessions*, Bk XII, Ch 8.

then tried their best to understand it as it was written. No one dared to hold the position that some parts were true and others were false.

But this is what happens to a man when he decides he holds scientific evidence the creation or its operation could not have occurred as it is written in Scripture. It is an insidious disease of our Catholic theologians today. The sadder fact is it may not be curable. Once these men get it into their heads that either Scripture is not inspired or inerrant in its historical narratives, or they believe they have the right to rearrange the text both chronologically and substantively until it suits their scientific presuppositions, reversing this trend is like trying to uncure cement. As noted, they use Augustine as their Poster Boy for alternative interpretation, but then they go off into a myriad of directions, all claiming the text of Genesis 1 is simply incorrect and they are here to fix it for us. Suffice it to say, everything Fr. Robinson said above is a complete and total falsehood. There is no Father, no medieval, no Scripture, and no official magisterial decision that even remotely comes close to what Fr. Robinson is proposing. So much for Fr. Robinson's "reason" as a guide to correct exegesis. His "reason" turns out to be merely an excuse to disregard the clear indicative statements of Holy Scripture and present his own "worldview."

Fr. Robinson: With the advent of the scientific discoveries of the eighteenth century, Catholics almost universally abandoned the strictly literal reading of Genesis 1 that had held sway for so many centuries. (p. 253).

R. Sungenis: Obviously Fr. Robinson believes there is nothing wrong with the change that occurred in unofficial Catholic interpretations of Scripture. We are expected to accept the drastic change without the slightest doubt or question as to its benefits for the Church. But anyone with sensitivity to how the Church operates as it is led by the Holy Spirit through history would immediately raise a red flag against Fr. Robinson's thesis. Since, as we stated earlier in our reading of *Lumen Gentium* 12, the Holy Spirit led the Church to read Genesis 1 literally "for so many centuries" and thus "could not err," how could it then be possible for there to come a massive change 1800 to 2000 years later in which "Catholics almost universally abandoned the strictly literal reading of Genesis 1"? There could be only

one reason. Since the Holy Spirit could not lie to the Church “for so many centuries” and lead the Church during those centuries into complete and utter error, the only other possible reason for the change is the parishioners of the Church abandoned the Holy Spirit’s teaching and made up their own. In fact, we see this warning on almost every page of the Bible. Not only will it happen, it will occur right inside the Church, at the highest levels. The Holy Spirit will not abandon us, but there are innumerable instances in which Scripture warns that our pastors and layman will fall headlong into error by their own doing when they avoid the patristic, biblical and magisterial authorities that went before them.³¹³

Fr. Robinson also refers to “the advent of the scientific discoveries of the eighteenth century.” Since he does not qualify his remark, he implies that anything science discovered at that time must be accepted as the unadulterated truth, as if once science has a consensus on a particular theory then it is as good as true and all people of “reason” must immediately adopt it as true, which invariably means we are to doubt, question or even reject what the Bible says on those topics.

But even Fr. Robinson knows this isn’t true, and that his general statement concerning “discoveries” is sloppy and tendentious, for Fr. Robinson himself rejects the whole science of evolution. But it was evolution that started the doubt against Genesis 1. So it is rather interesting to watch Fr. Robinson try to extricate himself from this morass of error by then suggesting that two of the very empirical methods evolutionists use to propound evolution are radiometry and sedimentology, the very things Fr. Robinson believes science got right. But as we will discover, Fr. Robinson didn’t do his homework before he touted these two methods as nearly infallible. Both these methods have alternate interpretations that actually prefer the short-ages of Genesis rather than the long-ages of evolution.

As for Fr. Robinson’s belief in the Big Bang, as we noted earlier, it is full of holes and *ad hoc* theories. Scientists today hold on to it, nonetheless, since science hasn’t even come close to having a viable theory to replace it. In the end, there simply is no evidence, much less proof, a Big Bang occurred 14 billion years ago. But unfortunately for the rest of us, Fr.

³¹³ Acts 20:29; 1 Co 3:1-17; 2Co 11:13-15; 2Tm 4:3f; 2Pt 2:1; Apoc 1-3.

Robinson is ready to turn over “centuries” of Spirit-led teaching about the six-day creation for the few crumbs that modern cosmogony and cosmology give him.

Fr. Robinson: As science progresses, it seems best to read Genesis 1 according to a model of progressive creationism. We now know, for instance, that there are sudden explosive appearances of plant and animal life in the geological record that cannot be accounted for by purely natural processes (more on this topic in chapters 10 and 11), and so must be accounted for by God’s intervention. (p. 253).

The oldest fossils—a type of bacteria—were found in western Australia and have been dated to 3,465 million years ago. For the next 3 billion years, the only fossils to appear are ‘single-celled organisms and colonial algae’. Then, there is a sudden jump in complexity in what is called the Ediacarian period, which starts about 635 million years ago (mya). Sponges, worms, and mollusks arose at that time, but getting them from single-celled organisms ‘is a little like transforming a spinning top into a bicycle’. Things get worse when we come to the famous Cambrian explosion. In a geologically short period of 6 million years during the Cambrian period, between 530-525mya, there suddenly appear ‘sixteen completely novel phyla and thirty classes’....The Cambrian explosion presents multiple problems for Darwinism. (pp. 459-460).

R. Sungenis: We can see once one rejects the Genesis record of a six-day creation and a universal flood, he must make up all kinds of speculative reasons why things occur as they do on Earth. So Fr. Robinson adopts the idea of ‘progressive creationism,’ which means God will step-in and create life at various periods over millions or billions of years, instead of doing it ‘at once’ or during six 24-hour days (as the Fathers told us). This is akin to the “God of the gaps” theory in which God is intermittently called upon to do miraculous creation so as to fill in the gaps of the long-ages chronology. It’s a silly idea, really, since if God creates intermittently over millions of years then why couldn’t he just create the same things over six days, especially since God compares the six-days of his work on creation with the six days of man’s work during the week (Ex 20:11)? Again, Fr. Robinson’s creation story makes no sense. It really has no good and sufficient reason for extending the creation over of billions of years.

Unfortunately, the evolutionists brought Fr. Robinson there, and he is left holding the bag.

And a heavy bag it is, since next Fr. Robinson asserts, “The oldest fossils—a type of bacteria—were found in western Australia and have been dated to 3,465 million years ago.” But the truth is, Fr. Robinson has no way of knowing they are 3.5 billion years old. The reason is due to their false theories on sedimentology. The evolutionists have assumed, without any empirical evidence, that sediments on Earth were deposited vertically, so they can then claim the lower deposits are older than the higher deposits. Thus one layer is said to be millions of years older than a higher layer, and do on.

The empirical evidence, however, shows us that sediments deposit horizontally, especially in water currents. As such, this means the age of the Earth cannot be known by counting up the strata, which means all the millions of years that have been assigned to various strata by modern geologists is completely wrong. The reason this is important is modern geologists do not date a fossil by the internal structure of the fossil, but by where the fossil appears in the geologic column they have already constructed based on the supposition that the geologic sediments were deposited vertically over millions of years. Since there is neither evidence nor proof of such a process, then all the dating they give to fossils, such as Fr. Robinson’s 3,465 million years, is pure speculation, and specious speculation at that.

As for the Cambrian explosion, yes, the evolutionists have insurmountable problems with this sudden deposit of life. But so does Fr. Robinson. His problem is there is no testimony from the Fathers, Scripture or the Church that various creations occurred over billions of years. Genesis 1 only gives Fr. Robinson six days, so he has dismissed that text as “not an exact, historical account of the unfolding of creation” (p. 252). In place of it he proposes God created life forms intermittently billions of years after the Big Bang but sometime before 13.75 billion years transpired. Why? Because Fr. Robinson has put his total trust in the modern science of sedimentology, which claims that fossils are millions or billions of years old. And he has done so without the slightest research into whether modern sedimentology and geological column dating is correct. In other

words, he put his trust in fallible men and their fallible science over the infallible word of God who said there were only six days of creation.

So, how can the Cambrian explosion, in which billions of fossils are found all over the world, appear to collect at a certain period in history and no other period? That's easy. It's called a worldwide flood, and it is recorded like a newspaper account in Genesis 6-9, and witnessed as a real event all over the rest of Scripture.³¹⁴ The flood would have forced water to move over the whole earth and kill every living thing in its path. Thus billions upon billions of creatures suddenly died and were buried under millions of tons of water pressure. This suddenness is precisely why we find whole trees going vertically through dozens of strata layers, or why we find fossils of fish as if they were violently and suddenly pressed against a rock in a split second, due to the extraordinary pressure that would have been present under miles of water. We even find fossils or organic specimens that have petrified food or organic food in their stomachs, respectively. Fr. Robinson would find this hard to explain, for why would God create all these fish, birds and animals at one time in the distant past and then have them all killed so suddenly, unless it was because God intended, for spiritual reasons, to kill all life Earth?

But, of course, Fr. Robinson doesn't believe in a worldwide flood, even though the Fathers talk incessantly about it, and the medievals followed suit.³¹⁵ For Fr. Robinson, a worldwide flood is a "Protestant" idea, and he

³¹⁴ Mt 24:38-39; Lk 17:27; 2Pt 2:5; Ws 18:5; Sr 40:10.

³¹⁵ **Ambrose**: "How wise also was Noah, who built the whole of the ark! How brave he was to overcome the flood! how temperate to endure it!" (*Duties of the Clergy*, Book 1, Chapter 25); **Apostolic Constitutions**: "for Thou art the Creator of men...who didst bring the great flood upon the world by reason of the multitude of the ungodly, and didst deliver righteous Noah from that flood by an ark, with eight souls, the end of the foregoing generations, and the beginning of those that were to come" (Book 8, Section 2); **Arnobius**: "When was the human race destroyed by a flood? was it not before us?" (*Against the Heathen*, Book 1, 4); **Augustine**: "For with respect also to the fact that He destroyed all men in the flood, with the exception of one righteous man together with his house, whom He willed to be saved in the ark" (*Catechizing the Uninstructed*, Ch 19, 32) "...the flood began, a flood which, as is recorded, was caused by heavy rains continuing for forty days, which days had not only two hours and a little more, but four, and twenty hours, completing a night and a day. And consequently those antediluvians lived more than 900 years, which were years as long as those which afterwards

doesn't even allow his reader to know the Catholic Fathers held to a universal flood since he doesn't mention it once in his book. We will have more on that later when we reach that particular section of Fr. Robinson's book.

Fr. Robinson: Today, it is clear that Genesis 1 is not meant to provide a strict history of the universe. In the words of Ruffini, "God could very well reveal (and who doubts it?) in what order and in what time He made the various things appear in the world; but in His inscrutable wisdom He preferred to leave such questions to human research." (p. 253).

R. Sungenis: The only thing "clear" today is impious men have decided to reject the history of Genesis 1 and make up their own history to suit their

Abraham lived 175 of, and after him his son Isaac 180, and his son Jacob nearly 150, and some time after, Moses 120, and men now seventy or eighty, or not much longer"; **Basil:** "He separated them from their wives in order that with purity they might escape the flood and that shipwreck of the whole world" (*The Orthodox Faith*, Book 4, Ch 24); **John Cassian:** ...and their wickedness increased to such a pitch that the world could only be purified by the flood and deluge (*Conferences*, Ch 21); **Clement of Rome:** "But against these the righteous providence of God brought a flood upon the world, that the earth might be purified from their pollution, and every place might be turned into a sea by the destruction of the wicked" (Pseudo Clement, Book 1, Chapter 29); **Cyprian:** "Therefore in the time of the flood the dove is sent forth from the ark, when the waters were violently rushing with all their force upon the earth" (*Against Novation*, 4); **Cyril of Jerusalem:** "For consider what happened in the days of Noe. The giants sinned, and much wickedness was then spread over the earth, and because of this the flood was to come upon them: and in the five hundredth year God utters His threatening; but in the six hundredth He brought the flood upon the earth" (*Catechetical Lectures*, 2, 8); **Ephraim:** "And moreover, God made a flood, and washed the earth, and purged her crimes; fire and brimstone again He sent on her, that He might make white her stains" (*Nisibene Hymns*, 35); **Gregory the Great:** "In keeping with the truth of history, what means the fact that at the time of the flood the human race outside the ark dies, but within the ark is preserved unto life" (*Epistles*, Book 11, Epistle 1); **Hippolytus:** "And in Noah's time there occurred a flood throughout the entire world, which neither Egyptians, nor Chaldeans, nor Greeks recollect" (*Refutations*, Ch 26); **Chrysostom:** "And that thou mayest learn by the very examples, at one time he punished Pharaoh, at another time He brought a flood of water upon the earth, and that utter destruction, and again at another time a flood of fire: and even now we see in many instances the wicked suffering vengeance, and punishments, which things are figures of Hell" (*Homilies*, on 2 Timothy, Hom 3).

own philosophical ideas. Here again, Fr. Robinson makes himself the authority who will give a definitive judgment on what Genesis 1 “meant,” and in doing so he will avoid practically everything Genesis 1 *actually* says, since it doesn’t fit into his Big Bang and long-ages model of the universe. As for Ruffini’s, “what God could very well reveal,” it was already revealed. It was already written in Genesis 1 and accompanying passages (*e.g.*, Ps 104; Job 37-38; Josh 10:10-14). But since neither Robinson nor Ruffini like the way Genesis 1 is written, they decided God either didn’t write it or didn’t want us to get anything detailed out of it. As for “human research,” it has shown itself unable to answer the big questions of cosmogony and cosmology once it decided to leave Genesis 1. All the theories of how the world began conflict with one another (Steady State, Big Bang, Expanding Universe, evolution, quantum mechanics and general relativity, Newtonian and Einsteinian gravitation in galaxies, *etc.*). The reason is quite simple. In order to do research that will be fruitful, man needs to know certain basic facts for his foundation, simply because he wasn’t there in the beginning to gather any evidence of how it began or how it progressed. Without these basic pieces of information, he’s as good as a boat without a rudder. As Pius X once said:

Human science gains greatly from revelation, for the latter opens out new horizons and makes known sooner other truths of the natural order, and because it opens the true road to investigation and keeps it safe from errors of application and of method. Thus does the lighthouse show many things they otherwise would not see, while it points out the rocks on which the vessel would suffer shipwreck.³¹⁶

Or as Gregory of Nazianzus once put it:

We, however, who extend the accuracy of the Spirit to the merest jot and tittle, will never admit the impious assertion that even the smallest matters were dealt with haphazardly by those who have recorded them.³¹⁷

Fr. Robinson: What is Genesis 1 saying then, for the standard Catholic exegete? Primarily, it is conveying certain important religious truths to the popular mind, and especially to that of the ancient Hebrews. What

³¹⁶ Pope Pius X, encyclical of March 12, 1904, *Iucunda Sane*, 35.

³¹⁷ *Orations*, II.

are those truths? That God is outside of the universe and the single source of its totality; that humans are the highest of His creations in the material order and have lordship over the Earth; that the Sabbath day rest must be religiously observed. How does it convey these truths? By a grandiose description of Creation, where by God is first described as creating everything (the heavens and the earth) in verse 2, and then creating each of the parts of the world that make up its whole in the succeeding verses. The parts are described in such a way that the popular mind can easily see that the entire world is included. (pp. 253-254).

R. Sungenis: Once again, Fr. Robinson is dealing in half-truths and conflation. It goes without saying, “The parts are described in such a way that the popular mind can easily see that the entire world is included.” Who would argue the parts are not part of the whole? So this kind of argumentation is superfluous. The question at issue is, why are the parts delineated in such detail, and why are they put together in such a way that the making of one leads in mechanical progression to the making of the other?

Moreover, why, from Fr. Robinson’s perspective of a Big Bang and long-ages, if God wanted to be truthful and give a “religious” message to the “popular mind,” would he then imply or state a falsehood about how it was put together? If Fr. Robinson is right that the Big Bang caused the origin of the universe and it developed over billions of years, then why would God tell the “popular mind” the Earth came first before the sun, moon and stars when the truth, according to Fr. Robinson, is that it came in reverse order? What advantage would God have, if he is trying to be “religious” and “truthful” (as Fr. Robinson insists), to portray the beginnings of the universe totally backwards from what really happened? If it’s a “religious” message, then it better be truthful in its history. But how can it have any semblance of truth if the order of the creation it gives is totally backwards? What kind of God is this who, claiming to give a simple “religious” truth to the people, decides to play Three Card Monte with the contents of the message? As such, it is not a “religious” message at all. It is a total lie and as irreligious as it possibly could be.

But this is what happens when you reject the actual history yet want to maintain some semblance of spirituality. You begin to twist things and make the text into something it is not. But the actual history is precisely what allows us to know what the religious message is, that is, we have a God who cannot lie and everything He says is to be taken as the Gospel truth, and there can be no fudging of His words to suit our own philosophical whims or scientific assumptions, otherwise we destroy not only the history but the religion as well, and there is nothing left but an assortment of lies strung together to give the impression of truth.

Fr. Robinson: The Fathers and the Scholastics saw Genesis 1 as describing God making three sections of the world in days 1 to 3, and then adorning those three sections in days 4, 5 and 6 (see chart below). Jaki read the chapter as describing the world as a tent, the most common dwelling place in those days, which God constructs in its totality, which is first describe in its main parts, then in its main particulars. (p. 254).

R. Sungenis: Stanley Jaki did it, but neither the Fathers nor the Scholastics did. Where is Fr. Robinson getting this notion? He certainly doesn't provide any documentation from the Fathers to back up his claim. The reason is because it is totally false. Unlike Fr. Robinson and Fr. Jaki, the Fathers and Scholastics believed the Light of Day One was separate and distinct from the sun and stars on Day Four. As noted earlier, a number of the Fathers maintain the Light of Day One was then used to create the sun and stars on Day Four. The reason Robinson and Jaki want to make it appear that Days 4, 5 and 6 merely adorn Days 1, 2 and 3 is precisely because they want to coalesce the Days as much as possible to lessen or obliterate the distinctions between them, and thus the sun and stars can become the Light instead of having a separate Light on Day One with superseding lights on Day Four.

But, of course, this still doesn't help Fr. Robinson's Big Bang because even though he attempts to make the sun and stars become the Light of Day One, the text says the Earth comes *before* the Light on Day One,³¹⁸ so

³¹⁸ "The earth was without form and void, and darkness was upon the face of the deep; and the Spirit of God was moving over the face of the waters. ³ And God said, "Let there be light"; and there was light." (Gen 1:2-3 RSV)

the whole exercise is futile for him. No matter what way he tries, he can't get Genesis 1 to agree with his Big Bang theory. That's because the details of the text matter, and they inextricably exclude a Big Bang. The only way Fr. Robinson can get a little closer to his Big Bang is by limiting the message of Genesis 1 to: "God is outside of the universe and the single source of its totality; that humans are the highest of His creations in the material order and have lordship over the Earth; that the Sabbath day rest must be religiously observed" (p. 253).

Fr. Robinson: What would happen today if we tried to read that first chapter in a literal sense? (p. 255).

R. Sungenis: For 1900 years the Church read Genesis 1 literally. The Fathers started the literal reading, as they read everything else in the Bible literally, unless necessity demanded another interpretation. Even Augustine's alternative non-literal interpretation confined the creation to one day, far from the billions of years of Fr. Robinson and Fr. Jaki.

Fr. Robinson: What if we postulated that God wanted the Bible to teach physics to the Hebrews and so He revealed to Moses *how* He created the world, not just *that* He created the world? (p. 255)

R. Sungenis: Fortunately, the Bible doesn't live in the either/or world of Fr. Robinson, and neither did the Fathers or the Church, but his either/or world is a favorite tactic in liberal hermeneutics. For them the biblical text has to be either a religious text devoid of actual history/science or a history/science text devoid of religious concepts. In reality, the Bible, deeper than any book man has ever written, uses both the truths of history/science and truths of religion in the same text. This co-relation confirms the truth of the Bible, because if the Bible is true in its history then it will also be true in its theology. If the Bible wasn't true in its history, then men would have every right to question whether it was true in its theology. But liberals like Robinson and Jaki want to separate the history from the theology (at least when it is convenient for them to do so) because they want to replace the Bible's history with their own history (*e.g.*, the Big Bang and long ages).

As we have noted earlier, the Bible often uses the truths of history/science as a springboard for religious truths, such as when it says the non-

movement of the Earth (history/science) is an analogy for God's immutability (Ps 93:1-2). In other places, God uses scientific facts and interrogatories as a means to inform Job that God was right in putting him through a test of his character (Job 37-39).

Fr. Robinson: People would begin laughing straight off when hearing talk of Earth's roof and its super-terrestrial waters. (p. 255).

R. Sungenis: Hardly. As we noted earlier in our study of the firmament and the history of the Hebrew word *raqiya*, we are "laughing" at Fr. Robinson for basing his rejection of the history of Genesis 1 on his idea the firmament was a "roof" and the Earth was flat. We showed a proper interpretation of the firmament. It is simply inner and outer space, not a roof. We also showed the idea of it being a roof was perpetrated by liberal scholars who purposely wanted to make Genesis 1 look foolish in regards to the construction of the universe so they could then replace it with their own history (e.g., the Big Bang, evolution and long-ages). Fr. Robinson and Fr. Jaki fell into that trap because they uncritically accepted the idea from liberal scholars that the Jews received their ideas of the cosmos from ancient Mesopotamian literature, and this literature talked about nothing but a flat Earth with a roof. We found not only did the Mesopotamian literature not do so, the Mesopotamians took the tradition of the Hebrews and corrupted it to their own liking, and thus producing a cacophony of various shaped worlds in their own literature.

Fr. Robinson: Scriptural faith would be exposed to ridicule as being a set of fanciful beliefs, proper to children, but not rational adults. This eventuality must be avoided at all costs. (p. 255).

R. Sungenis: Of course. If children are taught Genesis 1 says the firmament is a roof and the Earth is flat, then Genesis 1 would, indeed, be exposed to ridicule. But Genesis 1 is not teaching a flat Earth with a roof. The ones teaching Genesis 1 has a flat Earth and a roof are Fr. Robinson and Fr. Jaki. It is *they* who should be ridiculed for imposing such an asinine belief on Genesis 1. But, of course, that imposition is much too tempting for them when they believe in the Big Bang and long-ages.

Fr. Robinson: We must not try to turn Moses into an inspired precursor of Newton, says Renié. For if we do, reflective minds will easily conclude that the Bible cannot be the Word of God and therefore Christianity is false. (p. 255).

R. Sungenis: No, it is Fr. Robinson's hermeneutic that forces people to "easily conclude that the Bible cannot be the Word of God and therefore Christianity is false," because it is Fr. Robinson who misinterprets Genesis 1 and imposes all kinds of fanciful ideas on its historical texts (a flat Earth with a roof) that people will find laughable. As such, Fr. Robinson should at least admit his "Moses" is someone who actually misleads the reader into thinking Genesis 1 teaches a flat Earth and a roof when in reality neither Moses, nor the Holy Spirit who led him, said any such thing. In other words, Fr. Robinson has a "Moses" of his own making – one that lies about the history when he is portraying the history. So what is Fr. Robinson's solution to this dilemma? Just ignore "Moses's" historical account and reduce it to: "God created the heavens and the Earth." The rest is either fake or faulty. Some "Moses." This is a "Moses" who never knows when to tell the truth.

As for Newton, science has discovered his equations don't tell the whole story, but this is what happens when you confine the force and gravity equations to a solar system and ignore the rest of the universe. Newton confined the system to the sun and the Earth and thus concluded the Earth had to revolve around the sun. As such, the inertial forces (centrifugal, Coriolis, Euler) were relegated to "fictitious forces," but when they were needed to send up space probes they were duly added in by hand, otherwise the probe would go off course.

Modern cosmology has also seen instances in which Newton's equations have difficulty in representing reality. For example, neither Newton's gravity equation ($F = GMm/r^2$) nor his force equation ($F = ma$) work in deep space, especially with spiral galaxies. The galaxies spin 10 times faster than Newton's equations allow. There is simply not enough mass in these galaxies to have them spin so fast. What did modern science do? At first, it tried to revamp Newton's equations to fit the data (e.g., MOND, standing for Modified Newtonian Dynamics), but abandoned it because it would adversely affect almost all of science. So they settled on the

solution of claiming there was actually more mass in these galaxies than we could observe. The name assigned to this mass was “dark matter,” and this new matter comprised at least five times the amount of the normal baryonic matter actually observed in the galaxy. The only problem was, there was no evidence this new matter actually existed. It was theorized to exist because the science world needed it to keep Newton’s equations viable.

Additionally, Newton’s gravity equation ($F = GMm/r^2$) conflicts with the centrifugal/centripetal equation (mv^2/r), since when the equivalence $GMm/r^2 = mv^2/r$ is worked out, the small “ m ” in Newton’s gravity equation is cancelled and leaves the force for the revolution of the small body around the larger body completely dictated by the larger body with no contribution from the smaller body. If that is the case, then the larger body should be pulling on the smaller body with such a force that it would be impossible for the smaller body to revolve around it.

The above anomalies are why various scientists have concluded there is a “defect” in Newtonian mechanics. As philosopher and scientist Bertrand Russell reveals:

Whether the Earth rotates once a day from west to east, as Copernicus taught, or the heavens revolve once a day from east to west, as his predecessors believed, the observable phenomena will be exactly the same. This shows a defect in Newtonian dynamics, since an empirical science ought not to contain a metaphysical assumption, which can never be proved or disproved by observation.³¹⁹

Einstein said much the same about Newton’s physics:

One need not view the existence of such centrifugal forces as originating from the motion of K' [the Earth]; one could just as well account for them as resulting from the average rotational effect of distant, detectable masses as evidenced in the vicinity of K' [the Earth], whereby K' [the Earth] is treated as being at rest. If Newtonian

³¹⁹ Quoted from Dennis W. Sciama’s, *The Unity of the Universe*, 1961, pp. 102-103.

mechanics disallow such a view, then this could very well be the foundation for the defects of that theory...³²⁰

Physicist C. Møeller agreed with Einstein's assessment of Newton:

On the other hand, if we wish to describe the system in an accelerated system of reference [e.g., a rotating universe is accelerating], we must introduce, as is well known, so-called fictitious forces (centrifugal forces, Coriolis forces, *etc.*) which have no connection whatever with the physical properties of the mechanical system itself....It was just for this reason that Newton introduced the concept of absolute space [e.g., a universe which did not rotate] which should represent the system of reference where the laws of nature assume the simplest and most natural form.

Therefore Einstein advocated a new interpretation of the fictitious forces in accelerated systems of reference: instead of regarding them as an expression of a difference in principle between the fundamental equations in uniformly moving and accelerated systems he considered both kinds of systems of reference to be completely equivalent as regards the form of the fundamental equations; and the 'fictitious' forces were treated as real forces on the same footing as any other force of nature [i.e., a rotating universe creates centrifugal, Coriolis and Euler forces which make the sun and stars revolve around the universe's central axis].

The reason for the occurrence in accelerated systems of reference of such peculiar forces should, according to this new idea, be sought in the circumstance that the distant masses of fixed stars are accelerated relative to these systems of reference [i.e., the universe rotates around a fixed Earth].

The 'fictitious forces' are thus treated as a kind of gravitational force, the acceleration of the distant masses causing a 'field of gravitation' in the system of reference considered.

³²⁰ Hans Thirring, "Über die Wirkung rotierender ferner Massen in der Einsteinschen Gravitationstheorie," *Physikalische Zeitschrift* 19, 33, 1918, translated: "On the Effect of Rotating Distant Masses in Einstein's Theory of Gravitation."

Previously the effect of the celestial masses had been considered to be negligible; now, however, we must include the distant masses in the physical systems considered....It can, however, be assumed that all systems of reference are equivalent with respect to the formulation of the fundamental laws of physics. This is the so-called general principle of relativity.³²¹

But, thank God, these defects and anomalies in Newtonian mechanics are not in the scientific system of Genesis 1. In the Genesis system, the rotating universe creates centrifugal, Coriolis and Euler forces on the sun and stars so they continually revolve around the universe's central axis and center of mass, and the Earth occupies the center of mass with the universe. We can then arrive at the true and workable equation: $F = ma + \text{centrifugal} + \text{Coriolis} + \text{Euler}$ as what operates the universe. In this way, the mass and acceleration of the universe in rotation (the ma of $F = ma$), in addition to the inertial forces created by the angular momentum of the rotating universe (centrifugal, Coriolis, and Euler), all work to give us a stable universe in which all forces are accounted for. A very simple and elegant system far surpassing Newton's.

As such, Genesis 1 and Joshua 10:10-14 were way ahead of Newton. Newton was an ardent anti-Catholic who hated popery, not to mention he was into the occult. He would do almost anything to make the Catholic popes look like fools for claiming the universe rotated around a fixed Earth. So he devised an enclosed system of sun and Earth without any effect from the universe (a universe that he said was "absolute," immovable and inert) so that by eliminating the universe Newton could then have a confined system in order to make it look like the Earth must revolve around the sun.

And so we were stuck with Newton's universe for 200 years until Ernst Mach came along and told everyone Newton's universe was not scientifically valid. After Mach came Einstein. He admitted the general principle of relativity disallows Newton from eliminating the universe; and his equations, that were based on such an elimination, were not correct since they could not reproduce what the general principle of relativity

³²¹ *The General Theory of Relativity*, Christian Møller, Oxford, Clarendon Press, 1952, pp. 219-220.

demanded. In the end, this makes the geocentric system the only correct model of the universe.

So yes, we are glad Moses doesn't use Newtonian mechanics, since if he did he would then be caught in all kinds of contradictions. But, of course, Fr. Robinson has fallen into the same trap as Newton in rejecting a geocentric universe, and as such, Fr. Robinson's Newtonian world will stumble all over itself and never get to the truth.

Fr. Robinson: For now, we must state that if, for believers, Scripture is inerrant, its proper meaning can never be something conflicting with reason, that is, something erroneous. (p. 255).

R. Sungenis: This is one of the basic flaws of Fr. Robinson's book. Notice how he elevates "reason" as if it is perfect and never makes mistakes. He has an idealist understanding of reason. But reason is nothing more than the ability to think; to make a decision between two or more alternatives to a given problem. First, our reasoning process can only be as good as the data we use to determine what the solution may be. If we have faulty or incomplete data, then our reason will suffer accordingly, at least until our reason reveals our data is insufficient to solve the problem.

Secondly, Fr. Robinson also leaves out the very distinct possibility that since we live in a cursed and corrupt world full of sin and evil, one's "reason" can be used for good or evil. Thus, "reason," in itself, is not absolute knowledge; rather, it is a pathway to get to knowledge. In the end, Fr. Robinson's apologetic depends too much on reason and fails to see its weaker points. The only way we really know if our reason is on the right path is if we constantly check it against the absolute revelation we have received so that, as Pius X stated, we don't end up in a shipwreck concluding, with our reason, things are true when they are actually false, or vice-versa. Reason is a help, not an absolute. Unfortunately today, many Catholic apologists use their elevated understanding of "reason" as an excuse to ignore or demote the revelation so they can replace it with their own ideas, most of which are unproven or speculative (*e.g.*, the Big Bang).

Fr. Robinson: Thus, whenever a believer encounters a fact in nature that contradicts the literal sense of the Bible, he must say that the Bible,

in that instance, is not to be taken literally, at least, if he wants to save his reason. (p. 255).

R. Sungenis: Notice how Fr. Robinson so glibly refers to “a fact in nature,” as if they are so easy to find. The reality is, we know very few facts of nature, since man, being finite and often motivated by evil desires, can never really know if he has possession of a fact of nature. This is why philosophy from Descartes to Hume to Kant to Hegel to Kierkegaard is in an absolute quandary. From Descartes’ attempt to at least find one fact of nature, *cogito ergo sum* (“I think therefore I am”),³²² it’s been a long and arduous road for mankind to know any true facts of nature, especially since Kant—who concluded what we believe as facts are merely so in our mind, and thus we have no way of knowing whether they actually correspond with the reality that is outside of our mind—wrote the *Critique of Pure Reason*, which became the popular critique against Thomas Aquinas’ five proofs for God’s existence.³²³ All we had left after Kant was

³²² It was Descartes who paved the way for evolution. In his *Discourse on Method (of Rightly Conducting the Reason)*, Part V, Descartes wrote: “But it is certain, and it is an opinion commonly received by the theologians, that the action by which He now preserves is just the same as that by which He at first created it. In this way...we may well believe...that by this means alone all things which are purely material might in course of time have become such as we observe them to be at present; and their nature is much easier to understand when we see them coming to pass little by little in this manner, than were we to consider them as all complete to begin with” (Great Books of the Western World, Robert Maynard Hutchins, Editor, Vol. 31, Descartes/Spinoza, Encyclopedia Britannica, Inc. Chicago, pp. 55-56). My thanks to Hugh Owen for this quote, and the following comment: “Is it a coincidence that Descartes dabbled in the occult and then had three ‘mystical dreams’ brought to him by a “spirit of truth,’ which gave him the key to igniting a revolution in men’s thinking— a revolution that would overturn the traditional teaching that “the past—as revealed in Divine Revelation—is the key to the present” with the new mantra of the evolutionists, ‘the present is the key to the past’?” As Pascal wrote of Descartes: “I cannot forgive Descartes; in all his philosophy he did his best to dispense with God. But he could not avoid making Him set the world in motion with a flip of His thumb; after that he had no more use for God” (Blaise Pascal, *Pensees*, 669, Sec. 4, No. 6).

³²³ Thomas’ arguments were: 1) Argument from Motion: Since some things are in motion, they must have been put in motion by something else, since nothing can put itself in motion. Logically, there must have been something which first put things in motion, which could not be put in motion by anything else; 2) Argument from Efficient Cause: Since every effect has a cause, there must have been a first cause which was the cause of itself – the first efficient cause; 3) Argument from

Hegel's dialectic in which everything is in process with no definitive truths, and/or Kierkegaard and his existentialists who saw that reason got them nowhere. What they failed to see, of course, is the most important thing they left out of their epistemological theories was the direct revelation of God written in the Bible and confirmed by its tradition and magisterium. God had given them the blueprint of life and how it originated in the first chapter of Genesis. But since they regarded the simple language of Genesis 1-3 as imaginary and fantastic, they were forever doomed to depend on their reason alone to find ultimate answers. As St. Paul says in 1Co 1:19-21:

For it is written: "I will destroy the wisdom of the wise, and the learning of the learned I will set aside." Where is the wise one? Where is the scribe? Where is the debater of this age? Has not God made the wisdom of the world foolish? For since in the wisdom of God the world did not come to know God through wisdom, it was the will of God through the foolishness of the proclamation to save those who have faith.

This plight became especially significant in the area of cosmology since Kant is known as the "father of cosmology."

To a certain extent, Fr. Robinson follows their blind pathway, even though he would probably deny that he does. The reason is that just like Descartes, Hume, Kant, Hegel and Kierkegaard, Fr. Robinson alone decides when the Bible's revelation is true or false instead of maintaining with the rest of Church history that it is always true and literal unless someone can prove otherwise (the Church's case against Galileo being one of the better examples). Of course, once one gets into the area of "proof" he is immediately handicapped, since it is very difficult, if not impossible,

Possibility and Necessity: Since it is possible for things to be and not to be, it is possible that at one time nothing existed. But if nothing existed at one time, then nothing would exist now. So the existence of something was necessary in order for there to exist anything now; 4) Argument from Gradation: Some things are more perfect and some less perfect. But something must be the most perfect; 5) Argument from Intelligent Design: We see that some things which lack intelligence, such as natural bodies, are ordered to an end. This is obviously by design and must be directed by an intelligence. Therefore, some intelligent being exists by whom all natural things are directed to their end.

to prove a scientific theory as being both true and the only possible explanation of the data. As it stands, the divine revelation tells us the world was created in six days and the Earth was created first and is the object around which everything else was created in the remaining five days. We are required to take that revelation literally, unless someone can irrefutably prove otherwise, which Fr. Robinson cannot do.

Fr. Robinson claims “reason” has the job of determining if Genesis 1’s stipulations can indeed be taken literally. As he does so, he immediately shows us how faulty and biased his “reason” really is, as he begins his quest by imposing a false literal interpretation on Genesis 1, namely, presuming it teaches a flat Earth with a dome over it. As we can see, his “reason,” right out of the gate, has already misguided him.

Fr. Robinson makes another assumption from his “reason,” which claims the Light of Genesis 1:3 cannot be a real Light because it doesn’t have a source. He then concludes the Light of Day One in Genesis 1:3 must be the sun, moon and stars of Day Four, and this forces him to conclude there are no separate “days” in Genesis 1, since if there were then the Bible would create a contradiction between Day One and Day Four. As we saw, the problem here is Fr. Robinson has no scientific proof the Light of Genesis 1:3 needs a “source” or that the “source” must be confined to a celestial ball instead of a larger polymorphic source. Unfortunately, the denial of two separate lights, one on Day One and one on Day Four, has become the biggest stumbling block among almost all interpreters of Genesis 1. They refuse to accept the two-light understanding of Genesis 1 is true and thus opt to defend their view by vociferously claiming such an arrangement is “impossible,” and try to back it up by using some unproven and speculative theory from modern science (*e.g.*, radiometry, the Big Bang, evolution, *etc.*).

As we can see, Fr. Robinson’s “reason” suffers from the same handicap we noted earlier, that is, his knowledge is limited and his bias is clearly evident. This is when the use of “reason” becomes an excuse for “I’ll believe anything I want to believe, but I won’t believe how the Bible says it came to be.”

Fr. Robinson: In the words of St. Augustine: ‘Whatever they can really demonstrate to be true of physical nature, we must show to be capable of reconciliation without Scriptures’. In many cases, this means that the Bible must be understood as conveying a religious truth in popular language, not a scientific truth in technical language. (p. 255).

R. Sungenis: As we noted earlier, Fr. Robinson misconstrues what Augustine said. In this case, Augustine was laying down a logical maxim. If they can “really demonstrate,” that is, prove it irrefutably, then things change. But Augustine gives no examples of such an occurrence, and that is because he never found one. Augustine did the same thing the Church did to Galileo. Bellarmine told Galileo that things would change if Galileo could find irrefutable proof the Earth moved. Of course, Galileo never found any, and to this day no one else has found any, and those who think they have don’t know the science.

Another translation of Augustine’s paragraph puts it this way:

...I have learnt that a man is not in any difficulty in making a reply according to this faith which he ought to make to those who try to defame our Holy Scripture. When they are able, from reliable evidence, to prove some fact of physical science, we shall show that it is not contrary to our Scripture.

Notice Augustine did not say his opponents found something contradicting Scripture, but only if they find some fact of physical science, then we will show them Scripture doesn’t disagree with their finding. This should be an easy task, since Scripture will never disagree with a fact (a proven and irrefutable fact) of science, if there are any.

But in the next sentence Augustine remarks about their “theories”:

But when they produce from any of their books a theory contrary to Scripture, and therefore contrary to the Catholic faith, either we shall have some ability to demonstrate that it is absolutely false, or at least we ourselves will hold it so without any shadow of a doubt.

So, our course of action in regard to their unproven theories is we either refute them or hold to our faith (“it”) without any doubt. At no time does Augustine say science has found or will find a proven fact, and even if

they do, we will be able to demonstrate that Scripture will agree with it, since Scripture is the inspired word of God who cannot lie about any fact.

Secondly, the only thing that changed Augustine's literal interpretation of Genesis 1 was not something he discovered in science but what he thought were problems in the Bible, such as his puzzlement why Genesis 1 left out the angels, or why Sirach 18:1 seemed to say God made the world instantaneously instead of over six days. We saw that these "puzzles" were easily remedied if we interpret the Greek and Hebrew correctly.

Thirdly, people like Fr. Robinson are fond of quoting the passage from Augustine that seems to put doubt on a literal interpretation of Genesis 1, but they always ignore the passages in which Augustine distances himself from that conclusion, such as this one, which is on the very next page of Augustine's book:

But more dangerous is the error of certain weak brethren who faint away when they hear these irreligious critics learnedly and eloquently discoursing on the theories of astronomy or on any of the questions relating to the elements of this universe. With a sigh, they esteem these teachers as superior to themselves, looking upon them as great men; and they return with disdain to the books which were written for the good of their souls; and, although they ought to drink from these books with relish, they can scarcely bear to take them up. Turning away in disgust from the unattractive wheat field, they long for the blossoms on the thorn.³²⁴

Fr. Robinson: In many cases, this means that the Bible must be understood as conveying a religious truth in popular language, not a scientific truth in technical language. (p. 255).

R. Sungenis: Fr. Robinson misconstrues the situation. As much as Augustine states he will use Scripture to either refute scientific theories or show where Scripture agrees with scientific theories, he never says the scientific truth of the Bible is in "technical language," as if the Bible is required to speak in scientific nomenclature or in complex equations. The

³²⁴ *The Literal Meaning of Genesis*, Bk 1, Ch. 20, No. 40.

Bible's scientific or historical truths are put in plain language. Fr. Robinson, in his desire to make a stark contrast between the Bible and science, has merely imposed the requirement that in order to be scientific the Bible must use technical language. He forces this straw man into the situation so he can then collapse all the Bible's statements into mere "popular language." This ploy is done so he doesn't have to pay attention to any of it in regards to science, and can then make up his own scientific theories as to how the world began and operates (e.g., the Big Bang and long-ages).

Fr. Robinson: All of this is explained with perfect clarity and magisterial precision in Leo XIII's encyclical on Scripture entitled *Providentissimus Deus*, a passage that lays out the Biblical science interpretive model. (pp. 255-260).

R. Sungenis: Fr. Robinson, like most Catholic liberals, assumes too much from Pope Leo XIII's encyclical. They infer from it that Leo taught the Bible does not contain true scientific facts or accurate history. In reality, *Providentissimus Deus* is one of the Church's strongest statements on the literal interpretation of Scripture and the cautions that need to be exercised against the claims of modern science. We will quote and analyze these portions of his encyclical below. The more significant statements have been underlined for emphasis:

17.There has arisen, to the great detriment of religion, an inept method, dignified by the name of the "higher criticism," which pretends to judge of the origin, integrity and authority of each Book from internal indications alone. It is clear, on the other hand, that in historical questions, such as the origin and the handing down of writings, the witness of history is of primary importance, and that historical investigation should be made with the utmost care; and that in this matter internal evidence is seldom of great value, except as confirmation. To look upon it in any other light will be to open the door to many evil consequences. It will make the enemies of religion much more bold and confident in attacking and mangling the Sacred Books; and this vaunted "higher criticism" will resolve itself into the reflection of the bias and the prejudice of the critics. It will not throw on the Scripture the light which is sought, or prove of any advantage to doctrine; it will only give rise to disagreement and dissension, those

sure notes of error, which the critics in question so plentifully exhibit in their own persons; and seeing that most of them are tainted with false philosophy and rationalism, it must lead to the elimination from the sacred writings of all prophecy and miracle, and of everything else that is outside the natural order.

R. Sungenis: In this light we can place Fr. Robinson's insistence that Genesis 1 teaches a flat Earth with a dome over it, which is a staple of the "higher criticism" that Pope Leo warns against. Leo continues:

18. In the second place, we have to contend against those who, making an evil use of physical science, minutely scrutinize the Sacred Book in order to detect the writers in a mistake, and to take occasion to vilify its contents. Attacks of this kind, bearing as they do on matters of sensible experience, are peculiarly dangerous to the masses, and also to the young who are beginning their literary studies; for the young, if they lose their reverence for the Holy Scripture on one or more points, are easily led to give up believing in it altogether. It need not be pointed out how the nature of science, just as it is so admirably adapted to show forth the glory of the Great Creator, provided it be taught as it should be, so if it be perversely imparted to the youthful intelligence, it may prove most fatal in destroying the principles of true philosophy and in the corruption of morality. Hence to the Professor of Sacred Scripture a knowledge of natural science will be of very great assistance in detecting such attacks on the Sacred Books, and in refuting them. There can never, indeed, be any real discrepancy between the theologian and the physicist, as long as each confines himself within his own lines, and both are careful, as St. Augustine warns us, "not to make rash assertions, or to assert what is not known as known." If dissension should arise between them, here is the rule also laid down by St. Augustine, for the theologian: "Whatever they can really demonstrate to be true of physical nature, we must show to be capable of reconciliation with our Scriptures; and whatever they assert in their treatises which is contrary to these Scriptures of ours, that is to Catholic faith, we must either prove it as well as we can to be entirely false, or at all events we must, without the smallest hesitation, believe it to be so."

R. Sungenis: This is similar to what Fr. Robinson does with Genesis 1. He assumes a certain theory of science is true (*e.g.*, the Big Bang and long-ages) and then he scrutinizes the Sacred Books to find a mistake from the

author, which then leads him to discount the whole passage. Unfortunately, this is the quickest way for the young to lose reverence for Holy Scripture. It behooves Fr. Robinson to cease treating the Big Bang and long-ages as proven science and instead use the science that shows these theories as unproven and speculative in an effort at “refuting them” and saving the Bible from ridicule.

In the next few sentences, Leo XIII speaks about the language of Scripture. This is the section to which those advocating a heliocentric model often appeal (*e.g.*, Fr. Robinson), but we will see the pope says nothing about cosmology or the application of his hermeneutical principles to the specific question of how we are to understand the revolutions of the celestial bodies.³²⁵ The pope states:

To understand how just is the rule here formulated we must remember, first, that the sacred writers, or to speak more accurately, the Holy Ghost “Who spoke by them, did not intend to teach men these things (that is to say, the essential nature of the things of the visible universe), things in no way profitable unto salvation.” Hence they did not seek to penetrate the secrets of nature, but rather described and dealt with things in more or less figurative language, or in terms which were commonly used at the time and which in many instances are in daily use at this day, even by the most eminent men of science. Ordinary speech primarily and properly describes what comes under the senses; and somewhat in the same way the sacred writers – as the Angelic Doctor also reminds us – “went by what sensibly appeared,” or put down what God, speaking to men, signified, in the way men could understand and were accustomed to.

19. The unshrinking defense of the Holy Scripture, however, does not require that we should equally uphold all the opinions which each of the Fathers or the more recent interpreters have put forth in explaining it; for it may be that, in commenting on passages where physical

³²⁵ As even Fantoli, a heliocentrist, admits: “...in his encyclical *Providentissimus Deus*, Leo XIII dealt with the problem of the relationship between sacred scripture and science....A reference, at least, to the Galilean problem...would have been more than proper. Instead the pope limited himself to an allusion, formulated in extremely cautious terms, to errors committed by individual Church Fathers and, in following epochs, by their interpreters” (*The Case of Galileo: A Closed Question?* 2012, p. 228).

matters occur, they have sometimes expressed the ideas of their own times, and thus made statements which in these days have been abandoned as incorrect. Hence, in their interpretations, we must carefully note what they lay down as belonging to faith, or as intimately connected with faith – what they are unanimous in. For “in those things which do not come under the obligation of faith, the Saints were at liberty to hold divergent opinions, just as we ourselves are,” according to the saying of St. Thomas. And in another place he says most admirably: “When philosophers are agreed upon a point, and it is not contrary to our faith, it is safer, in my opinion, neither to lay down such a point as a dogma of faith, even though it is perhaps so presented by the philosophers, nor to reject it as against faith, lest we thus give to the wise of this world an occasion of despising our faith.” The Catholic interpreter, although he should show that those facts of natural science which investigators affirm to be now quite certain are not contrary to the Scripture rightly explained, must nevertheless always bear in mind, that much which has been held and proved as certain has afterwards been called in question and rejected. And if writers on physics travel outside the boundaries of their own branch, and carry their erroneous teaching into the domain of philosophy, let them be handed over to philosophers for refutation.

Although it is said the Fathers sometimes expressed things in the ideas of their own times, Leo XIII does not give any specific examples, and thus there is no direct support for interpreting Earth-sun passages in a non-literal fashion. In fact, it goes without saying the Fathers would speak from their own culture and use its idiomatic vocabulary, since none of them would have known the culture or the idioms of the future.

In addition, Leo’s remarks about “things belonging to the faith...what they are unanimous in,” would technically discount the heliocentric/geocentric debate from the discussion. First, we noted earlier, Cardinal Bellarmine argued the Earth’s centrality and immobility were a “matter of faith,” if not so much in the explicit sense, then simply because God is the author of Scripture, as even Leo states later in this encyclical (*e.g.*, ¶21: “and that God, speaking by the sacred writers, could not set down anything but what was true”).

Second, it is a fact the Fathers were unanimous in their belief in geocentrism. There was not one dissenting voice. It is perhaps the strongest unanimity the Fathers ever held on a particular topic. Hence, on both counts, faith and patristic unanimity, history shows geocentrism is not to be included in Leo XIII's category of things to be "figuratively" interpreted or things the Fathers expressed only "in the ideas of their times."

The exception to this is when the Fathers, the Bible and, as Pope Leo says, "even by the most eminent men of science," use figurative language, such as "the sun rose." Both geocentrists and heliocentrist use this kind of figurative language since in neither cosmology does the sun actually "rise," rather, in the heliocentric system scientists say the "sun rises" but they believe the Earth rotates and makes it appear the sun rises; and in the geocentric system a scientist will say the "sun rises" but believe the sun revolves around the Earth and makes it appear as if it is rising.

Also significant in the above paragraph is Leo XIII's comment about the mistakes in science and the overturning of scientific ideas, especially that of physics. He states:

The Catholic interpreter... must nevertheless always bear in mind, that much which has been held and proved as certain has afterwards been called in question and rejected. And if writers on physics travel outside the boundaries of their own branch, and carry their erroneous teaching into the domain of philosophy, let them be handed over to philosophers for refutation.

Fr. Robinson fits this category as well. His unproven teaching on radiometry and sedimentology is part of his "philosophical" approach to using "reason" to arrive at the truth. A good philosopher would tell him that he has no proof of his scientific claims and thus his "reason" should tell him not to use such claims as evidence of his philosophical regimen.

If there is anything of which Catholic theologians and scientists should avail themselves it is to an honest study into the history of science, which starkly reveals almost every scientific theory proposed as true has been replaced by another theory that falsifies it; and that theory awaits to be replaced by yet another. In light of the new scientific evidence available,

we can easily see that the Big Bang, long-ages, relativity, radiometry and heliocentrism are examples of theories close to being that which “has been held and proved as certain has afterwards been called in question and rejected.”

In the next paragraphs, Leo XIII makes some of the Church’s strongest statements upholding the full plenary inerrancy and inspiration of Holy Writ ever recorded. The words of Robert Bellarmine to Galileo meet their strongest echo in the solemn declarations of Leo XIII:

20. The principles here laid down will apply to cognate sciences, and especially to History. It is a lamentable fact that there are many who with great labor carry out and publish investigations on the monuments of antiquity, the manners and institutions of nations and other illustrative subjects, and whose chief purpose in all this is too often to find mistakes in the sacred writings and so to shake and weaken their authority. Some of these writers display not only extreme hostility, but the greatest unfairness; in their eyes a profane book or ancient document is accepted without hesitation, whilst the Scripture, if they only find in it a suspicion of error, is set down with the slightest possible discussion as quite untrustworthy. It is true, no doubt, that copyists have made mistakes in the text of the Bible; this question, when it arises, should be carefully considered on its merits, and the fact not too easily admitted, but only in those passages where the proof is clear. It may also happen that the sense of a passage remains ambiguous, and in this case good hermeneutical methods will greatly assist in clearing up the obscurity. But it is absolutely wrong and forbidden, either to narrow inspiration to certain parts only of Holy Scripture, or to admit that the sacred writer has erred. For the system of those who, in order to rid themselves of these difficulties, do not hesitate to concede that divine inspiration regards the things of faith and morals, and nothing beyond, because (as they wrongly think) in a question of the truth or falsehood of a passage, we should consider not so much what God has said as the reason and purpose which He had in mind in saying it – this system cannot be tolerated. For all the books which the Church receives as sacred and canonical, are written wholly and entirely, with all their parts, at the dictation of the Holy Ghost; and so far is it from being possible that any error can co-exist with inspiration, that inspiration not only is essentially incompatible with error, but excludes and rejects it as absolutely and necessarily as it is

impossible that God Himself, the supreme Truth, can utter that which is not true. This is the ancient and unchanging faith of the Church, solemnly defined in the Councils of Florence and of Trent, and finally confirmed and more expressly formulated by the Council of the Vatican. These are the words of the last: “The Books of the Old and New Testament, whole and entire, with all their parts, as enumerated in the decree of the same Council (Trent) and in the ancient Latin Vulgate, are to be received as sacred and canonical. And the Church holds them as sacred and canonical, not because, having been composed by human industry, they were afterwards approved by her authority; nor only because they contain revelation without error; but because, having been written under the inspiration of the Holy Ghost, they have God for their author.” Hence, because the Holy Ghost employed men as His instruments, we cannot therefore say that it was these inspired instruments who, perchance, have fallen into error, and not the primary author. For, by supernatural power, He so moved and impelled them to write – He was so present to them – that the things which He ordered, and those only, they, first, rightly understood, then willed faithfully to write down, and finally expressed in apt words and with infallible truth. Otherwise, it could not be said that He was the Author of the entire Scripture. Such has always been the persuasion of the Fathers. “Therefore,” says St. Augustine, “since they wrote the things which He showed and uttered to them, it cannot be pretended that He is not the writer; for His members executed what their Head dictated.” And St. Gregory the Great thus pronounces: “Most superfluous it is to inquire who wrote these things – we loyally believe the Holy Ghost to be the Author of the book. He wrote it Who dictated it for writing; He wrote it Who inspired its execution.”

21. It follows that those who maintain that an error is possible in any genuine passage of the sacred writings, either pervert the Catholic notion of inspiration, or make God the author of such error. And so emphatically were all the Fathers and Doctors agreed that the divine writings, as left by the hagiographers, are free from all error, that they labored earnestly, with no less skill than reverence, to reconcile with each other those numerous passages which seem at variance – the very passages which in great measure have been taken up by the “higher criticism;” for they were unanimous in laying it down, that those writings, in their entirety and in all their parts were equally from the afflatus of Almighty God, and that God, speaking by the sacred writers, could not set down anything but what was true. The words of St.

Augustine to St. Jerome may sum up what they taught: “On my part I confess to your charity that it is only to those Books of Scripture which are now called canonical that I have learned to pay such honor and reverence as to believe most firmly that none of their writers has fallen into any error. And if in these Books I meet anything which seems contrary to truth, I shall not hesitate to conclude either that the text is faulty, or that the translator has not expressed the meaning of the passage, or that I myself do not understand.”

22. But to undertake fully and perfectly, and with all the weapons of the best science, the defense of the Holy Bible is far more than can be looked for from the exertions of commentators and theologians alone. It is an enterprise in which we have a right to expect the co-operation of all those Catholics who have acquired reputation in any branch of learning whatever. As in the past, so at the present time, the Church is never without the graceful support of her accomplished children; may their services to the Faith grow and increase! For there is nothing which We believe to be more needful than that truth should find defenders more powerful and more numerous than the enemies it has to face; nor is there anything which is better calculated to impress the masses with respect for truth than to see it boldly proclaimed by learned and distinguished men. Moreover, the bitter tongues of objectors will be silenced, or at least they will not dare to insist so shamelessly that faith is the enemy of science, when they see that scientific men of eminence in their profession show towards faith the most marked honor and respect. Seeing, then, that those can do so much for the advantage of religion on whom the goodness of Almighty God has bestowed, together with the grace of the faith, great natural talent, let such men, in this bitter conflict of which the Holy Scripture is the object, select each of them the branch of study most suitable to his circumstances, and endeavor to excel therein, and thus be prepared to repulse with credit and distinction the assaults on the Word of God.

Fr. Robinson: Thus, whenever the Bible speaks in terms that offend scientific exactitude, it is simply using a popular language which follows the immediate data of sense, and not the more sophisticated sense knowledge which is obtained by careful observation and the use of measuring devices. (p. 256).

R. Sungenis: As we noted earlier, when the Bible touches upon science it speaks on the macro-level, not the micro-level. For example, the Bible is interested in telling us there was a Light created on their First Day that was different than the lights created on the Fourth Day (*i.e.*, sun, moon and stars); but the Bible is not interested in telling us the nature of Light; how fast it travels; or at what angle it is refracted, which are all on the micro-level of understanding. The micro-level is the level at which we will get, as Leo says, “sophisticated sense knowledge which is obtained by careful observation and the use of measuring devices.”

But the problem is, if one doesn't believe the Bible's macro-testimony that there was, indeed, a first Light before the lights of the sun, moon and stars, then he will never be able to understand how the world originated or how it works. If one rejects the macro-level God gave in revelation, then one's micro-level analysis will always be faulty and heading down a blind alley. God gave us the macro-level so that we could then use it in our micro-level analysis and calculate all the details our hearts desire to know.

But if one starts off with a Big Bang and reject the Bible's macro-level science that the Earth came first and then the sun, moon and stars, one will be caught in a quagmire and never be able to escape. One will be forced to keep patching up one's Big Bang theory (*e.g.*, inflation, dark matter, dark energy, changing omega values, changing ultimate speed limits, changing Hubble constants, changing lambda values, etc.) until one has so many patches the whole thing will rip apart of its own accord.

Fr. Robinson: Meanwhile, for Catholics, none of these matters touch upon dogmatic truths. They are required to believe that: God created the universe and sustains it; faith and reason can never come into conflict. (p. 256).

R. Sungenis: In the idealist sense of faith and reason, faith will never come into conflict with reason, but we don't live in an ideal world. If we had a perfect and error-free interpretation of the Bible and we had perfect reasoning that didn't make mistakes, there would be no conflict between faith and reason, and this is what we strive for. But we live in the real world where our reason is often faulty and our faith has a limited amount of dogmatic proclamations. Those who use the “faith has no conflict with

reason” argument among today’s liberals usually do so in order to claim that such things as evolution, long-ages, the Big Bang and heliocentrism are what our “reason” tells us as to how things operate, and since our faith can have “no conflict” with these established doctrines of modern science, then the “faith” part of the “faith has no conflict with reason” must be the part that bends to accommodate “reason.” But any fool can see all they have done is presumed their “reason” is correct and then forced this conclusion onto the faith – something of which Fr. Robinson is very guilty.

Fr. Robinson: They are not required to believe that: the universe is a certain age; God created that universe in a period of six twenty-four-hour days; the sun goes around the Earth or vice-versa, and so on. Of themselves, these last issues do not have any direct bearing on the domain of faith. (p. 256).

R. Sungenis: According to the Church of 1616-1633, the issue of the sun going around the Earth *did have* a “direct bearing on the domain of faith,” simply because if the Bible’s statements about the sun going around the Earth were incorrect, this reflected on the whole testimony of Scripture and made it all suspect of error. The Church was smart enough to realize that since the Bible said the sun moved, whether in figures or in literal language, but never said the Earth moved, either in figurative or literal language (*e.g.*, the Bible never says something like, “the Earth moves like a bird through space”); and it also knew, of the only two possibilities, either the Earth had to move around the sun or the sun had to move around the Earth, they had to choose the correct one in the case of Galileo, and thus the Church adhered to her patristic and traditional testimony, namely, it was the sun that moved around the Earth. As Bellarmine put it to Fr. Foscarini:

Second, I say that, as you know, the Council [of Trent] has prohibited interpretation of Scripture contrary to the common agreement of the Holy Fathers.³²⁶ And if Your Reverence will read not only the Holy Fathers but also the modern commentaries on Genesis, the Psalms, Ecclesiastes, and Joshua, you will find that they all agree on the literal interpretation that the sun is in heaven and rotates around the earth with

³²⁶ “...il Concilio proibisce esporre le Scritture contra il commune consenso de’Santi Padri” (*ibid.*, p. 172).

great speed, and that the earth is very far from the heavens and stands immobile in the center of the world.³²⁷ Ask yourself then how could the Church, in its prudence, support an interpretation of Scripture which is contrary to all the Holy Fathers and to all the Greek and Latin commentators. Nor can one reply that this is not a matter of faith, because even if it is not a matter of faith because of the subject matter [ex parte objecti], it is still a matter of faith because of the speaker [ex parte decentis].³²⁸ Thus anyone who would say that Abraham did not have two sons and Jacob twelve would be just as much of a heretic as someone who would say that Christ was not born of a virgin, for the Holy Spirit has said both of these things through the mouths of the Prophets and the Apostles.

This is when “reason” really helps our faith. Bellarmine used his reason to uphold the faith of our Fathers, not use his reason to denounce them. His admonitions to both Foscarini and Galileo were the most “reasonable” thing to tell them.

As for Bellarmine’s seeming acquiescence to science when he told Foscarini the following:

Thirdly I say that whenever a true demonstration would be produced³²⁹ that the sun stands in the center of the world and the earth in the third heaven, and that the sun does not rotate around the earth but the earth around the sun, then at that time it would be necessary to proceed with great caution in interpreting the Scriptures which seem to be contrary,³³⁰ and it would be better to say that we do not understand them than to say that what has been demonstrated is false. But I will not believe that there is such a demonstration, until it is shown to me.³³¹ To

³²⁷ “...trovarà che tutti convengono in esporre ad literam ch’il sole è nel cielo e sta nel centro del mondo, iimmobile” (*ibid.*).

³²⁸ “Nè si può rispondere che questa non sia material di fede, perchè se non è material di fede *ex parte obiecti*, è material di fede *ex parte decentis*” (*ibid.*).

³²⁹ “...quando ci fusse vera demonstrazione...” (*ibid.*).

³³⁰ “...alhora bisogneria andar con molta consideratione in esplicare le Scritture che paiono contrarie...” (*ibid.*).

³³¹ “Ma io non crederò che ci sia tal dimostrazione, fin che non mi sia mostrata” (*ibid.*). We depart here from Blackwell’s translation: “But I do not believe that there is such a demonstration, for it has not been shown to me,” for two reasons: (1) the verb crederò is future and should be translated: “I will not believe” as opposed to “I do not believe,” and (2) “fin” should be translated “until,” not “for it

demonstrate that the assumption that the sun is located in the center and the earth in the heavens saves the appearances is not the same thing as to demonstrate that in truth the sun is located in the center and the earth in the heavens. The first demonstration, I believe, can be given; but I have the greatest doubts about the second. And in case of doubt one should not abandon the Sacred Scriptures as interpreted by the Holy Fathers.³³² Let me add that the words, ‘The sun rises and sets, and returns to its place...’ were written by Solomon, who not only spoke as inspired by God, but who also was a man more wise and learned than all others in the human sciences and in the knowledge of created things, and all this wisdom he had from God.³³³ Thus it is not likely that he would assert something which was contrary to demonstrated truth or to what could be demonstrated.³³⁴ You might tell me that Solomon spoke according to appearances, since it appears to us that the sun revolves* when the earth turns, just as it appears to one on a ship who departs from the shore that the shore departs from the ship. To this I respond that, although to him who departs from the shore it does seem that the shore departs from him, nevertheless he knows that this is an error and he corrects it,³³⁵ seeing clearly that the ship moves and not the shore. But in respect to the sun and the earth, there has never been any wise person who felt a need to correct such an error, because one clearly experiences that the earth stands still, and the eye is not mistaken when it judges that the sun moves, just as it is not mistaken when it judges that the moon and the stars move.³³⁶ And this is enough for now. With

has not.” Normally “fino” is chosen, as it is in modern Italian, but classical Italian often left off the final “o.” The correct translation of Bellarmine’s words, then, are: “But I will not believe that there is such a demonstration until (or, until such time as) it is shown to me,” which Fantoli adopts from Finocchiaro (*Galileo: For Copernicanism and for the Church*, pp. 184, 187).

³³² “...et in caso di dubbio non si dee lasciare la Scrittura Santa, esposta da’ Santi Padri” (*ibid.*).

³³³ “fu Salomone, il quale non solo parlò ispirato da Dio, ma fu uomo sopra tutti gli altri sapientissimo e dottissimo nelle scienze humane e nella cognitione delle cose create, e tutta questa sapienza l’hebbe da Dio” (*ibid.*).

³³⁴ “...o che si potesse dimostrare.” (*ibid.*).

³³⁵ “...nondimeno conosce che questo è errore e lo corregge” (*ibid.*).

³³⁶ “ma quanto al sole e la terra, nessuno savio è che habbia bisogno di correggere l’errore, perchè chiaramente sperimenta che la terra sta ferma e che l’occhio non s’inganna quando giudica che il sole si muove, come anco non s’inganna quando giudica che la luna e le stele si muovano.” (*ibid.*).

cordial greetings, Reverend Father, and I pray for every blessing from God.³³⁷

...the fact remains that neither Galileo nor anyone else has been able to prove scientifically that the Fathers, the Old Testament prophets, or Scripture is wrong in saying the sun goes around the Earth. In fact, as we have seen from the testimony of today's scientists, the evidence has actually gone more against a heliocentric system than in Galileo's day. In any case, Bellarmine's assessment against heliocentrism was approved by Pope Paul V and deemed a "formal heresy," and this was confirmed by Pope Urban VIII in 1633 when Galileo's imprimatur was rescinded and Galileo was condemned as "vehemently suspect of heresy." Unfortunately, Fr. Robinson doesn't deal with this part of history. Instead, he will prop up his "reason" as the excuse he doesn't have to address it. As we will see later, his "reason" is composed of just one example of why he thinks the Earth revolves around the sun; but we will also see his one example, in regards to science and its advances, is infantile, to say the least. It in no way proves the Earth is revolving around the sun.

Fr. Robinson: They are natural issues, not supernatural ones. (p. 256).

R. Sungenis: This is usually what someone does who has accepted the beliefs of modern science or cosmology as the last word on what is true. That is, he needs to make categories in which to place the things which are mundane in Scripture from the things that are spiritual. The two categories Fr. Robinson creates here is just another way of saying Scripture can either err, be uninspired, or ignored in its more mundane propositions, but is right in its theological or salvific propositions. But as we have seen, Fr. Robinson has a bad habit of making assertions he can't prove or back up with any magisterial authority. The Church has never made such a distinction. Let's consult the very pope that Fr. Robinson quoted to confirm this, Pope Leo XIII:

³³⁷ As translated by Richard Blackwell in *Galileo, Bellarmine and the Bible*, pp. 265-267, except for "fin" noted above, in addition to the word "rotates" which has been replaced by "revolves." Underlining has been added to emphasize the salient points.

But it is absolutely wrong and forbidden, either to narrow inspiration to certain parts only of Holy Scripture, or to admit that the sacred writer has erred. For the system of those who, in order to rid themselves of these difficulties, do not hesitate to concede that divine inspiration regards the things of faith and morals, and nothing beyond, because (as they wrongly think) in a question of the truth or falsehood of a passage, we should consider not so much what God has said as the reason and purpose which He had in mind in saying it – this system cannot be tolerated. For all the books which the Church receives as sacred and canonical, are written wholly and entirely, with all their parts, at the dictation of the Holy Ghost; and so far is it from being possible that any error can co-exist with inspiration, that inspiration not only is essentially incompatible with error, but excludes and rejects it as absolutely and necessarily as it is impossible that God Himself, the supreme Truth, can utter that which is not true. This is the ancient and unchanging faith of the Church, solemnly defined in the Councils of Florence and of Trent, and finally confirmed and more expressly formulated by the Council of the Vatican.

Fr. Robinson's only out, of course, is if he could irrefutably prove the Earth revolves around the sun, but that just begs the question. He doesn't, not even close. No reputable scientist would stake his career on what Fr. Robinson offers as proof, as we shall see.

Fr. Robinson: No matter what science discovers about the physical universe, it cannot in any way impinge on Catholic beliefs. If the Bible, however, is presented as teaching a physical science revealed by God, that is, if physical truths are presented as supernatural truths, then they can and will come into conflict. (pp. 256-257).

R. Sungenis: It is interesting to see how Fr. Robinson picks and chooses his data. If it is true, as he claims, "if physical truths are presented as supernatural truths," then the physical truths will conflict with supernatural truths. Then why did Fr. Robinson say earlier, "Catholics are required to believe that God created the universe and sustains it"? Isn't the universe a physical truth made by a supernatural act? So does the physical and the supernatural necessarily come into conflict? Certainly not.

In reality, it's only the physical things that Fr. Robinson doesn't like that come into conflict with the supernatural (e.g., six-day creation;

geocentrism). But the same God who called the world into being by divine fiat is the same God who determined the sun would revolve around the Earth, so what difference does it make what “physical truth” is in view?

But, of course, this is where Fr. Robinson’s Big Bang gets in his way, since he will claim the only physical truth we can get from the Bible is God created a process in which the “singularity” exploded and then, under natural processes, initiated the Big Bang.

Unlike the theistic evolutionists, Fr. Robinson’s deity must intrude intermittently to create something else billions of years down the road, although when doing so this God has the right to ignore the chronology he inspired as inerrant in Genesis 1 and make the sun and stars come before the Earth; and he also has the right to ignore that Genesis 1 has two lights, one on the First day and others on the Fourth day.

Fr. Robinson: This does not happen in a religion, such as Catholicism, which does not have recourse to its sacred text as the ultimate source of all truth, but rather uses the sacred text as a secondary support for supernatural truths already believed. (p. 257).

R. Sungenis: It is one thing for Catholics to deny the *Sola Scriptura* of the Protestant faith, which is perfectly acceptable since the Church and Tradition are equal authorities with Scripture, but it is quite another thing to go to the opposite extreme and designate the Bible as a “secondary support.” The Church has never taught such. It is a primary source for truth, not a secondary support. Again, Fr. Robinson has a bad habit of asserting *ipse dixit* claims. The Catholic Church has three primary sources of truth: Scripture, Tradition and the Church, in no particular order. None of the three will conflict with the other, since the Holy Spirit leads them all into the truth. But Fr. Robinson’s view conflicts with them all. Neither Scripture, Tradition nor the Church teach long-ages or a Big Bang or a heliocentric system. So why does Fr. Robinson believe in them? Because he uses his “reason” and thereby thinks he has “proof” from science that the Scripture, Tradition and the Church were wrong on these issues, or that they can be ignored because they were said in a different time and culture.

Fr. Robinson: In the end, the Catholic Church only binds her members to believe a select number of supernatural truths, along with the natural truths closely connected to them. (p. 257).

R. Sungenis: As opposed to the distinction Fr. Robinson earlier made between physical truth and supernatural truth as being potentially in conflict (“if physical truths are presented as supernatural truths, then they can and will come into conflict”), he now states there are “natural truths” connected to supernatural truths, and apparently both the supernatural and the natural are both things “the Catholic Church...binds her members to believe.” So, that must mean there are some “natural” truths which the Church binds her members to believe, most likely because those natural truths were supernaturally stated either in Tradition, Scripture or the Magisterium. Unfortunately, Fr. Robinson doesn’t give us any examples of cases in which supernatural truths have a natural truth connected to them, but it would be hard for Fr. Robinson to argue against the fact that the natural truth of seeing the sun revolve around the Earth each day is not connected to the supernatural truth stated in the Bible that the sun revolves around the Earth each day.

Fr. Robinson: In all other questions, she leaves her children to hold their own opinions. Pope Leo clarifies this matter as well.

19. The unshrinking defense of the Holy Scripture, however, does not require that we should equally uphold all the opinions which each of the Fathers or the more recent interpreters have put forth in explaining it; for it may be that, in commenting on passages where physical matters occur, they have sometimes expressed the ideas of their own times, and thus made statements which in these days have been abandoned as incorrect. Hence, in their interpretations, we must carefully note what they lay down as belonging to faith, or as intimately connected with faith – what they are unanimous in. For “in those things which do not come under the obligation of faith, the Saints were at liberty to hold divergent opinions, just as we ourselves are,” according to the saying of St. Thomas. And in another place he says most admirably: “When philosophers are agreed upon a point, and it is not contrary to our faith, it is safer, in my opinion, neither to lay down such a point as a dogma of faith, even though it is perhaps so presented by

the philosophers, nor to reject it as against faith, lest we thus give to the wise of this world an occasion of despising our faith.” The Catholic interpreter, although he should show that those facts of natural science which investigators affirm to be now quite certain are not contrary to the Scripture rightly explained, must nevertheless always bear in mind, that much which has been held and proved as certain has afterwards been called in question and rejected. And if writers on physics travel outside the boundaries of their own branch, and carry their erroneous teaching into the domain of philosophy, let them be handed over to philosophers for refutation. (p. 257).

R. Sungenis: We covered this passage just a few pages earlier. We saw that Leo’s reference to, “Hence, in their interpretations, we must carefully note what they lay down as belonging to faith, or as intimately connected with faith – what they are unanimous in,” discounted Fr. Robinson’s favorite piñata, geocentrism, since the Fathers were in unanimous consent on geocentrism, which was the conclusion of both Bellarmine and Paul V in their declaring heliocentrism a “formal heresy,” and Urban VIII declaring Galileo was “vehemently suspect” of said heresy. In turn, it is Fr. Robinson who is guilty of ignoring Leo XIII’s words since, as Leo says,

“The Catholic interpreter, although he should show that those facts of natural science which investigators affirm to be now quite certain are not contrary to the Scripture rightly explained, must nevertheless always bear in mind, that much which has been held and proved as certain has afterwards been called in question and rejected.”

It is Fr. Robinson who fails to show science now admits geocentrism is not contrary to science, and he also fails to accept his version of stellar parallax has been rejected as a proof for heliocentrism.

Fr. Robinson: Thus, while Catholics are free to hold their own opinions on questions of physical science, they are advised not to hold up those opinions as dogmas of faith. If they do, one who disagrees with them will believe that he must change his opinion if he wants to become Catholic, a belief that might place a stumbling block in the way of his acceptance of Christ. (p. 258).

R. Sungenis: Yes, on certain issues Catholics are free to hold their own opinions on questions of physical science, but the truth—one which Fr.

Robinson has entirely ignored or waved away with his hand—is Galileo was told he could not believe, or even entertain, the physical science of the Earth revolving around the sun; and that was because this physical science was denied by the Fathers in favor of geocentrism, and denied by Scripture in favor of geocentrism. Obviously, the question of what body went around what other body was where the Church, guided by the Holy Spirit, drew its line in the sand regarding “physical science.” Apparently, Fr. Robinson doesn’t believe the Holy Spirit was guiding the Church at that time, neither in the physical science nor in the decision the Church made to consider the issue a matter of faith. And since that is so, what confidence can he have in present clerics of the Church who, in their private opinion, declare just the opposite of what the magisterium declared in 1616 and 1633?

As for placing “stumbling blocks” in the way of someone coming to Christ, what bigger stumbling block could there be but a Church claiming She is guided by the Holy Spirit into all truth, whether through her extraordinary or ordinary magisterium, but has to excuse herself for one instance in which the Holy Spirit’s guidance apparently wasn’t operating, namely, the case of Galileo? Obviously, the penitent would reason that if the Church could be wrong on one issue She declared a matter of faith, then what’s to stop Her from being wrong on a host of issues? How is the Catholic Church’s claim any different than other religions who claim to have the truth? The truth is, it wouldn’t be any different. We would be suspect of the same errors the other churches have fallen under.

In fact, if I’ve heard it once I’ve heard it a thousand times – “Since the Catholic Church was wrong about Galileo, this means it can err in other issues. What else is she wrong about?” The alleged mistake against Galileo spawned a whole secular movement in which the Church would never be taken seriously about anything of real importance in life. It also spawned the entire liberal theology movement in Catholicism. This was noted by the leading liberal of the whole age, Teilhard de Chardin when he stated:

As a result of the collapse of geocentrism, which she has come to accept, the Church is now caught between her historico-dogmatic representation of the world’s origin, on the one hand, and the requirements of one of her most fundamental dogmas on the other – so

that she cannot retain the former without to some degree sacrificing the latter.

In earlier times, until Galileo, there was perfect compatibility between historical representations of the Fall and dogma of universal redemption – and all the more easily, too, in that each was modeled on the other. So long as people believed as St. Paul himself did, in one week of creation and a past of 4000 years – so long as people thought the stars were satellites of the earth, and that animals were there to serve man – there was no difficulty in believing that a single man could have ruined everything, and that another man had saved everything. Today we know, with absolute physical certainty, that the stellar universe is not centered on the earth, and that terrestrial life is not centered on mankind.... With the end of geocentrism, what was emerging was the evolutionist point of view. All that Galileo’s judges could distinctly see as menaced was the miracle of Joshua. The fact was that in consequence the seeds of decomposition had been introduced into the whole of the Genesis theory of the fall: and we are only today beginning to appreciate the depth of the changes which at that time were already potentially completed [in Galileo’s day].³³⁸

Unfortunately, Fr. Robinson is blinded to this aspect of the apologetic, and that is solely because he thinks he has “proof” the Earth revolves around the sun.

Fr. Robinson: For the Reformers rejected every mediating authority between the believer and the Bible. This elevated the Bible to the status of the sole rule of faith, the beginning and the end of all truth, a position Jaki refers to as ‘biblicism’. (p. 258).

R. Sungenis: This is nothing more than ‘the pot calling the kettle black.’ Certainly the Protestants were wrong in depending solely on the Bible, since even the Bible itself doesn’t teach *sola scriptura*.³³⁹ But Robinson and Jaki are equally wrong in the cavalier way they deal with the Bible, picking and choosing from it only those things they will accept and giving lip service to its sacredness and authority. By the time Jaki and his liberal colleagues (who all ate off the same plate as de Chardin) get done with

³³⁸ Teilhard de Chardin, “Fall, Redemption and Geocentrism,” *Christianity and Evolution*, 1969, 1971, William Collins Co., Harcourt, pp. 37-38.

³³⁹ See my book, *Not By Scripture Alone*, Queenship Publishing, 1997.

Genesis 1 to 11, there is hardly anything left of it on a historical level, much less a message to believe. The audacity of these men strains credulity, but it doesn't stop there. Both Jaki and Robinson treat the patristic evidence in the same whimsical fashion—ignoring the Fathers' consensus whenever that consensus doesn't agree with their already made-up minds about cosmogony and cosmology. They do the same with the magisterium, as they totally ignore, with a wave of their hand, what the Church decreed in 1616 and 1633 against both Copernicanism and Galileo, but then they gleefully accept any unofficial statements by certain officials today who support Galileo. These liberals could hardly care less about what the Fathers, the Tradition or the Magisterium has to say, yet they will vociferously criticize the Protestants for believing in *sola scriptura*, which is little more than hypocrisy.

Fr. Robinson: The literal sense, however, conflicts with reason in many places. (p. 258).

R. Sungenis: The truth is, Fr. Robinson hasn't shown one piece of evidence supporting his contention the literal sense conflicts with reason, except his idiosyncratic way of reading Genesis 1:6-9, which he believes teaches the Earth is flat and has a hard dome over it. If Fr. Robinson was really using his "reason," he would reason that Genesis 1 is teaching no such thing, since there is no hard dome over the Earth. But then, like Jaki before him, he will base his whole rejection of Genesis 1 because the text insists upon two light sources, the Light of verse 3 and the lights of verses 14-19. But Fr. Robinson will then claim to use his "reason" to conclude that because light must have a source, then the Light of verse 3 cannot be real because it seems to have no source. Fr. Robinson never considers the possibility that his "reason" may be faulty; rather, he considers it the gold standard from which to judge whether the inspired and inerrant Scripture is true! In other words, Fr. Robinson's "reason" becomes the new god to worship, for somehow it can tell—just by judging whether there should be two lights or one—that both the authors of Scripture and the Holy Spirit who was guiding them—either were in error or had to be communicating in abstract language. The possibility they were speaking the exact truth of what occurred in Creation week is thrown out like the proverbial sour milk, not even given a chance to be interpreted as written. All in all, I

wouldn't trust the "reasoning" processes of Frs. Jaki and Robinson as far as I could throw them. They use their reason to defeat reason and faith, not to help them.

Fr. Robinson: This is why Protestants who decide that the arguments of philosophical realism have no value are left to make use of what is called a 'God of the gaps' argument to establish God's existence. What this means is that they look around in creation, seeking phenomena that cannot be explained by scientific reasoning. 'Aha!' they say once they have found a gap in scientific knowledge, 'God must be operating there, in that area that you cannot explain'. They see all causality in reality as secondary causality, with that causality being divided between God and creatures. What creatures can do in the natural world is explained by science and what creatures cannot do is explained by religion." (p. 259).

R. Sungenis: Although it is true some Protestants have little use for philosophical arguments, this is not true of all of them. I don't know too many Protestants, for example, who dismiss Thomas Aquinas' five philosophical proofs for the existence of God, but who do reject the Nominalism of the same period for its philosophical inadequacies. In other words, Fr. Robinson is painting with way too broad a brush, trying to pigeon-hole Protestants into one of his made-up categories so that he can tar the whole fixture. At the least, the Protestants have to be commended for taking the Bible at face value in the same places where Jaki and Robinson impose a straw man and believe their "philosophical reasoning" carries them far above the Bible (*e.g.*, Robinson's belief there cannot be two lights in Genesis 1; or his belief the Hebrews believed the Earth was flat with a roof over it).

The stark irony is, Protestants will look at Fr. Robinson's literal interpretation of Mt 26:26 ("This is my body, take and eat") in which Fr. Robinson believes it teaches the real bodily presence of Christ, but the Protestant will conclude it is nothing but hokey-pokey; whereas Fr. Robinson will look at the Protestants' and traditionally-minded Catholics' attempt to interpret Genesis 1 literally as nothing but hokey-pokey.

The further irony is, what is harder to believe: that Christ is bodily present in a wafer we are told is not really a wafer, or that the Earth was created

first and put in the center of the universe with two separate lights created on two different days? I dare say, in that regard, the Protestants have an easier time of it than Catholics. Holding up a wafer and declaring it is God and not a wafer takes an awful lot of faith and hardly any reason, for we cannot fathom how it can be so, even when we attempt to use the Aristotelian ‘accidens and substance’ paradigm, for our reason objects to the idea that bread accidens can exist without bread substance. When Aristotle formulated his ‘accidens and substance’ paradigm he never envisioned someone, like Aquinas, injecting a different thing into the substance than what the accidens were supposed to show.

In the end, our reason is strained to incredulity when we are told to accept a wafer becomes God, yet we believe it with all our hearts. Why? Because Christ, as God, said so! *That* is where the Fathers started. If Fathers *did* use their reason to determine whether the Eucharist was truly the body of Christ, they would have probably ended up as most Protestants do, that is, not believing it was possible and thus confine it to the symbolic or metaphorical. The Fathers added their reason when they attempted to explain how, by the use of various Greek and Latin words, what might be taking place in the Eucharistic miracle,³⁴⁰ but none of them could really explain it as ‘the thing in itself,’ to borrow from Kant.

Fr. Robinson does the same thing with Genesis. Here again, just like the Eucharist, we have a divine miraculous intrusion that turns divine words

³⁴⁰ The Council of Trent, Session 13, Chapter 4. The term *Transubstantiation* was first used by Hildebert of Tours (c. 1079); followed by Stephen of Autun (d. 1139); and Peter of Blois (d. 1200). In 1202, **Pope Innocent III** used *transsubstantiare* (DS 416, 784), which led to the use of *transsubstantiatio* at the ecumenical councils of Fourth Lateran in 1215 and Lyons in 1274. Previous to this, the early Latin Fathers used “convertere” (Eng. “to convert”); “transmutare” (Eng. “to change”); “transformare,” “transfigurare,” and “transfundere.” The strongest designation used by the Greek Fathers was μεταουσιος (“change of substance”). Other Greek words appearing in reference to the Eucharist were: μεταβάλλειν (“to change”: Cyril of Jerusalem, Theodore of Mopsuestia); μεταβέβληται (“to change, to transform”: Cyril of Jerusalem) μεταποιεῖν (“to cast anew, alter”: Gregory of Nyssa, Cyril of Alexandria, John Damascene); μεθίστησιν (“transmute”: Cyril of Alexandria); μεταστοιχειοῖν (“transelemented”: Gregory of Nyssa); μεταρρυθμίζειν (“to change the form or fashion of a thing”: John Chrysostom); μετασκευάζειν (“to fashion differently, to transform, to disguise”: John Chrysostom).

into a divine creation (Gn 1:1). God spoke and the creation miraculously came into being, just as when Christ, who is God, spoke in Mt 26:26 and the bread miraculously became the body of Christ. There is no difference worthy of a distinction in these two events. Yet Fr. Robinson accepts the latter, even though his reason cannot fathom how it takes place and his eyes tell him that all he sees is a wafer, and his senses tell him it even tastes, smells and feels like a wafer. But somehow he rejects the former because his reason can't fathom how God could have put together the universe the precise way it is described in Genesis 1.

Is there a disconnect here? Yes there is, and it occurs because Fr. Robinson is arbitrary in the way he uses his 'reason' and makes conclusions from it.

Of course, Fr. Robinson might argue that modern science tells him the description of the world's origin and operation in Genesis is wrong. Laying aside our previous critique of Fr. Robinson's attempt at science, what if an Aristotelian expert told Fr. Robinson his understanding of how the Eucharist occurs is wrong because even Aristotle never taught the *accidens* can be something different than the *substance* making it appear as an *accidens* (e.g., Christ's *substance* cannot produce a bread *accidens*; only a bread *substance* can produce a bread *accidens*)? What would Fr. Robinson do then? Would he then use his "reason" and reject the Eucharist as the body of Christ because some scientist seemed to have an irrefutable point about Aristotle's real intentions? No, if he were a true Catholic, he would hold to the Eucharist as being the body of Christ by pure faith, whether he could explain it by his "reason" or not.

Moreover, Fr. Robinson could not conclude in this case that reason is contradicting faith, since all Fr. Robinson could really conclude is his limited reason is insufficient to solve the apparent conundrum, and there must be a divine reason, which is not a lie, of which Fr. Robinson is unaware, as to why the wafer can be Christ and not a wafer. Someday God will teach it to Fr. Robinson if and when he gets to heaven, but until then all Fr. Robinson can do is accept the Eucharist by raw faith in Christ's words at the Last Supper, which is precisely what the Church has always done with Scripture.

In the end, neither the Protestant view of Genesis nor the Catholic view of the Eucharist is dependent on our reason, since both must believe God cannot lie (Titus 1:2; Heb 6:13); and since he cannot lie, he cannot create something that is a lie (*e.g.*, a square circle, or anything that is impossible to exist). Apparently, for Christ to become the Eucharist and the wafer to be replaced is not a lie, otherwise, Christ could not have uttered it and it would not be put in Scripture as a true historical event.

Likewise, for God to make Earth the center of the universe and produce two lights instead of one, and do so in six-days, is also not a lie, since if it was a lie, God could not have inspired it in the Bible. This is the crux of the whole issue, and it is very simple—God cannot lie.

Moreover, there is no science that can refute the literal words of either Mt 26:26 or Genesis 1:1-26. If someone claims to possess an alleged proof that seems to contradict one or the other, all we need do—if science follows its normal path of upsetting its own theories—is wait a few years and science will change enough to accommodate both, as it did when it changed from Newtonian (which claimed the Earth *must* revolve around the sun) to Relativistic physics (which says that the universe can revolve around a fixed Earth). In any case, science can prove nothing to us, for both the science and the men who interpret it are finite and fallible.

Fr. Robinson: Protestants who decide that the arguments of philosophical realism have no value are left to make use of what is called a ‘God of the gaps’ argument to establish God’s existence. What this means is that they look around in creation, seeking phenomena that cannot be explained by scientific reasoning. (p. 259).

R. Sungenis: I find it revealing that Fr. Robinson criticizes the Protestants as having a “God of the gaps” methodology, yet earlier we saw it was Fr. Robinson himself who does the same thing. Let me re-quote his remarks:

Fr. Robinson: As science progresses, it seems best to read Genesis 1 according to a model of progressive creationism. We now know, for instance, that there are sudden explosive appearances of plant and animal life in the geological record that cannot be accounted for by purely natural processes (more on this topic in chapters 10 and 11), and so must be accounted for by God’s intervention. (p. 253).

Since Fr. Robinson's Big Bang universe over billions of years cannot, by his own admission, produce biological life, he must account for plant and animal appearances by "God's intervention" at some time in the latter portion of the billions of years. If this is not the same thing as the "God of the gaps" theory, what is? As it stands, Fr. Robinson needs the same "gap filler" of divine intervention described in Genesis 1:11-13 on the Third day of Creation, and another divine intervention described in Genesis 1:20-23 when the birds and fish are created, and yet another divine intervention described in Genesis 1:24-26 when the animals are created. So why does he find it so hard to believe the Genesis account of Creation in six days when he already has three of those days dependent on divine fiat? Well, this is what happens when you accept the long-ages of the Big Bang theory but reject evolution's belief that biological life can be produced from non-biological. Fr. Robinson's required "divine intervention" shows he is caught between a rock and a hard place. His solution is an eclectic one. He uses the theory of evolution to produce, by natural means, the non-biological world of space, time and celestial bodies (sun, moon, stars), but then uses the supernatural Creation model to produce biological life (plants, birds, fish, animals and man). How convenient. Whatever he can slap together to give some semblance of coherence, Fr. Robinson seems destined to use. But, of course, it is not coherent, and is really a step beneath the Protestant gap theory, since at least they acknowledge that a progressive evolution of even non-biological entities is at best highly improbable in light of the laws of nature (*e.g.*, the second law of thermodynamics).

If Fr. Robinson then argues he also needs "divine intervention" for the development of non-biological entities over billions of years, then he essentially has the same amount of divine fiat for his universe the Creationists do for theirs. So what's the difference? The difference is that Fr. Robinson wants to avoid Genesis 1's chronology of how the divine intervention occurred (*e.g.*, the Earth came before the sun, moon and stars) and replace it with his own chronology (*e.g.*, the sun, moon and stars came before the Earth). Apparently, Fr. Robinson's belief in "divine intervention" is one that believes the divine power does not want to follow its own divine revelation, or, even worse, doesn't have the capability to make the Earth before the sun and stars. In any case, Fr. Robinson's model

of the development of the universe is full of contradictions and special pleadings.

Fr. Robinson: Calvin insists on Creation in six, twenty-four hours days. The waters above the firmament are not figurative. Plants grew without sun and moon so that we might learn to refer all things to God. Calvin had a ‘resolve to hold as high as possible the dependence of nature on God. He took each and every verse of that chapter as a literal divine revelation about God’s total absolute power which can bypass nature at any time.’ He ‘presents Moses as one who reported God’s creative acts to be such as to confound nature’s laws.’ (p. 263).

R. Sungenis: Although in this section Fr. Robinson is dealing with Protestants, the fact remains these Protestants had the same understanding about Genesis 1 as the Fathers of the Catholic Church, but somehow Fr. Robinson avoids that fact entirely. We quoted earlier from about a dozen Fathers who stated they held to a six, twenty-four-hour day for creation. All of them stated there existed, in their day, waters above the firmament. Even Augustine, who allowed for a one-day creation, stated firmly and without hesitation, the existence of waters above the firmament:

Taking these theories into account, a certain commentator [Basil] has made a praiseworthy attempt to demonstrate that the waters are above the heavens, so as to support the word of Scripture with the visible and tangible phenomena of nature.... Hence, from the existence of the air between the vapors that form the clouds above and the seas that stretch out below, our commentator proposed to show that there is a heaven between water and water. This painstaking enquiry is, in my opinion, quite praiseworthy.

With this reasoning some of our scholars attack the position of those who refuse to believe that there are waters above the heavens... Thus they would compel the disbeliever to admit that water is there not in a vaporous state but in the form of ice. But whatever the nature of that water and whatever the manner of its being there, we must not doubt that it does exist in that place. The authority of Scripture in this matter is greater than all human ingenuity.³⁴¹

³⁴¹ *The Literal Meaning of Genesis*, Bk 2, Ch. 5, No 9.

As for the plants, the Fathers had no problem in understanding that either the Light of Genesis 1:3 provided what the plants needed, or they understood that since the Days of Genesis were only 24 hours, it would not harm the plants at all if they had to wait merely a day to receive the light on the Fourth day they needed for photosynthesis.

So as much as Fr. Robinson criticizes Calvin's literal interpretation of Genesis, he is criticizing his own patristic pedigree, the very pedigree the SSPX claims to follow! In reality, just as Fr. Robinson was a mass of contradictions in appealing to "divine intervention" and yet criticizing the "God of the gaps" method of the Protestants, so here he shows a similar contradiction with his own faith tradition.

Fr. Robinson: But a God Who confounds nature's laws at the same time that He establishes nature's laws poses immense theological problems. He is not a God acting with consistency or wisdom, two qualities which the Bible attributes to Yahweh incessantly. (p. 263).

R. Sungenis: Fr. Robinson has created another straw man for himself. Whether Calvin stated God bypassed natural laws in the Creation is up for argument, since Fr. Robinson provides no quotes or context from Calvin. But the Fathers, who believed something very similar to Calvin, do not set in competition God's creative fiat from the natural laws that God made at the same time. It is precisely the divine fiat that brings the laws of nature into being. For example, when God, by divine fiat, separated the waters by the expansion of the firmament, a certain amount of water was left on Earth, and this water was further divided on Earth when God made the land masses rise. But the water followed the natural law of falling by gravity and assuming the shape of its container, in accordance with all the laws of nature we know presently.

Fr. Robinson: The stability of the physical world is used by the Old Testament as a proof by way of sign of the stability of God's covenant with His people and His salvific will (Ps 118:89-91; Jr 33:25-26). (p. 263).

R. Sungenis: I find it interesting Fr. Robinson sees a correlation between Old Testament descriptions of a stable physical world and God's operations, yet he fails to mention the very Old Testament passages most

illustrative of this divine analogy, namely, all the geocentric passages that correlate the immobility of the Earth to God's own immutability, his steadfast love, his uncompromising justice, and his unchanging eternal word, such as...

Psalm 93:1-2: The Lord reigns; he is robed in majesty; the Lord is robed, he is girded with strength. Yea, the world is established; it shall never be moved; ² thy throne is established from of old; thou art from everlasting.

1Chronicles 16:30-34: tremble before him, all the earth; yea, the world stands firm, never to be moved. ³¹ Let the heavens be glad, and let the earth rejoice, and let them say among the nations, "The Lord reigns!" ³² Let the sea roar, and all that fills it, let the field exult, and everything in it! ³³ Then shall the trees of the wood sing for joy before the Lord, for he comes to judge the earth. ³⁴ O give thanks to the Lord, for he is good; for his steadfast love endures for ever!

Psalm 96:10: Say among the nations, "The Lord reigns! Yea, the world is established, it shall never be moved; he will judge the peoples with equity."

Psalm 119:89-91: For ever, O Lord, thy word is firmly fixed in the heavens. ⁹⁰ Thy faithfulness endures to all generations; thou hast established the earth, and it stands fast. ⁹¹ By thy appointment they stand this day; for all things are thy servants.

Fr. Robinson: The Bible even employs the notion of 'natural laws' to this end. And, as we saw in chapter 3, for a philosophical realist, God does not change the laws of nature; He only suspends them in extremely rare circumstances. (p. 263).

R. Sungenis: Yes, in Fr. Robinson's eclectically created universe, God "suspends" his laws whenever Fr. Robinson needs God's "divine intervention" to create biological life a few billions of years down the road after God used natural laws in the prior billions of years.

Fr. Robinson: If the Creator intervenes periodically in nature to upset its consistency and so prevent our understanding nature's past, then it is clear that the Creator does not want us to make sense of what He has created. (p. 263).

R. Sungenis: But if Fr. Robinson himself is going to be consistent, then he can't have his cake and eat it, too. It is Fr. Robinson's God who "intervenes periodically in nature" when Fr. Robinson insists there is "divine intervention" whenever God wants biological life to appear. Moreover, this inconsistency in Fr. Robinson's view cannot be argued away by claiming that when it comes to man, God must infuse a soul and thus divine intervention is absolutely necessary. The reason is that plants, birds, fish and animals do not have eternal souls, if they have souls at all. In the end, the only view in which we cannot "make sense of what he has created," is Fr. Robinson's view of Creation. Neither the Bible, the Fathers nor the Magisterium teach the contradictory eclectic view of Fr. Robinson.

Fr. Robinson: One of the devices that the Bible uses to portray God as acting in a wholly consistent and rational way is to make reference to the stability of the Earth. Psalm 92[93] starts by stating that the Lord 'has made the world firm, not to be moved.' Verse 10 of Psalm 95[96] use the same language, and many more passages from the Bible could be cited wherein Scripture supports geocentrism when read in a literal, scientific sense, and supports God's consistency when read in a spiritual sense. (p. 264).

R. Sungenis: So here we have Fr. Robinson admitting, in the same way he used Psalm 118(119) to show how the Bible uses natural laws as an analogy to God's attributes, he now admits the Bible does the exact same with passages teaching a motionless Earth. So what deters Fr. Robinson from applying a "spiritual" truth to the "literal" truth in Psalm 92(93) and Psalm 95(96) as he did in Psalm 118(119)? It is his hapless historiography of what occurred with Copernicus, as seen below:

Fr. Robinson: These two possible interpretations were available to all and sundry when the Polish cleric Nicholas Copernicus arrived on the European scene. He was attracted to the heliocentric model of the universe because of its ability to account for the movement of the planets in terms of much greater mathematical simplicity than the

Ptolemaic geocentric model in vogue at the time. He did not have scientific proof for heliocentrism, and its main problem was that it seemed to contradict the evidence of the senses that the Earth is not moving. For him, the heliocentric model, far from being an attack on religion, was a support for it, and thus in the preface and first book of his *De Revolutionibus*, he proposed it as adding weight to proofs for the existence of God.

R. Sungenis: In truth, Copernicus' model wasn't any simpler than Ptolemy's, and it didn't work any better. Suffice it to say, a thorough study of the original Copernican system, the very system Galileo brought to the Catholic Church and demanded she accept, reveals a model racked with so many problems one wonders how it ever saw the light of day. In 1514 Copernicus was asked by Pope Leo X to use his talents to help fix the calendar. The calendar had been causing slight but pestering problems for many centuries. The last revision was initiated by Julius Caesar who employed his astronomers to create what we now know as the Julian calendar, a calibration that incorporated $365\frac{1}{4}$ days per year, a marked improvement from the previous 355 days per year.³⁴² Even the Greek astronomer Eudoxus (d. 350 BC) knew the year was 365 days and 6 hours long. But as good as Ptolemy's model was, it was not good enough to incorporate the perturbations of the planets caused by their mutual gravitational attraction (and neither has any other system, including the Keplerian).

One of the reasons Copernicus was invited by the pope was he had published a precursor of his heliocentric theory between the years 1510-

³⁴² In the pre-Christian era, there were two dating systems: (1) a dating system based on the dates of the reigning monarch. In this system, the foundation date is 753 BC, which is the foundation date of Rome under the auspices of Romulus. The Romans titled this foundation date *ab urbe condita* (meaning: "from the foundation of the city"). Their year began on April 21st and they had 355 days in their calendar. This inaccurate calendar remained in force until the time of Julius Caesar, who in 46 BC, under the tutelage of the Greek astronomer Sisogenes, increased the number of days in the year 46 BC to 445. Thereafter (45 BC and onward) there were $365\frac{1}{4}$ days in the year, and the year would begin on January 1st. (2) a dating system based on significant events. The commencement of the Olympic games in 776 BC is the foundation date. Every four years, the Greeks recorded the date of the Olympiads, abbreviated "OL." 1 AD would be the 754th year of the foundation of Rome, or the fourth year of the 194th Olympiad.

1514, titled *Commentariolus* (“Little Commentary”) antedating his more famous work *De revolutionibus orbium coelestium*, which was released some thirty years later, in 1543, the year of Copernicus’ death. It is in the *Commentariolus* that Copernicus makes his first claim the Ptolemaic system is unsatisfactory, yet admits it is “consistent with the data.”³⁴³ Among the more salient features of the treatise are Copernicus’ three major premises: (1) “That the Earth is not the center of the universe, only of the moon’s orbit and of terrestrial gravity”; (2) “That the apparent daily revolution of the firmament is due to the Earth’s rotation on its own axis”; (3) “that the apparent annual motion of the sun is due to the fact that the Earth, like the other planets, revolves around the sun.”

Copernicus’ motivation for introducing his new system was that he was dissatisfied with Ptolemy’s. As we noted earlier, however, whatever complexity and futility Copernicus saw in Ptolemy’s model, he attributed it to Ptolemy’s departure from the circle as the path for the celestial bodies. In *De revolutionibus orbium coelestium* he writes:

We must however confess that these movements are circular or are composed of many circular movements, in that they maintain these irregularities [of motion] in accordance with a constant law and with fixed periodic returns; and that could not take place, if they were not circular. For it is only the circle which can bring back what is past and over with...³⁴⁴

³⁴³ *Commentariolus*, p. 57, as cited by Paul Feyerabend, *Against Method*, p. 71, n. 14. The full title is: *Nicolai Copernici de hypothesibus motuum coelestium a se constitutes commentariolus*. It had no name until given one by Tycho Brahe (Repcheck, *Copernicus’ Secret*, p. 185). Its exact date is uncertain, but evidence points to 1510-1514, predating *De revolutionibus orbium coelestium* by at least three decades. Koestler remarks on its effect: “...the first pebble had fallen into the pond and gradually, in the course of the following years, the ripples spread by rumour and hearsay in the Republic of Letters. This led to the paradoxical result that Canon Koppernigk enjoyed a certain fame, or notoriety, among scholars for some thirty years without publishing anything in print, without teaching at a university or recruiting disciples. It is a unique case in the history of science. The Copernican system spread by evaporation or osmosis, as it were” (*Sleepwalkers*, p. 149).

³⁴⁴ *On the Revolution of the Heavenly Spheres*, trans., Wallis, p. 12.

So enamored was Copernicus with the circle that he retained Aristotle's crystalline spheres as the perfect mold for the circle. As scientific historian from Harvard, I. Bernard Cohen, reveals:

In both *De revolutionibus* and the *Commentariolus* Copernicus attacks the Ptolemaic astronomy not because in it the sun moves rather than the earth, but because Ptolemy has not strictly adhered to the precept that all celestial motions must be explained only by uniform circular motions or combinations of such circular motions. Ptolemy had recognized that an accurate representation of planetary motion necessitated the abandoning of uniform circular motion, and he boldly introduced what was later called an "equant," from which non-uniform motion along an arc would appear uniform. From the point of view of accuracy, this was a great step forward, indeed, the best representation of planetary motion before Kepler. But Copernicus considered the use of an equant to be a violation of fundamental principles and devoted his original astronomical research to devising a system of sun, planets, moon, and stars in which the planets and the moon glide with uniform motion along a circle or with some combination of such motions.³⁴⁵

In light of this singular motivation, it appears the legacy of the Copernican revolution is based on a fallacious premise—that circles are somehow superior to ellipses. Cohen adds:

He then turned to ancient authors in order to find out whether in any of their writings they might have proposed alternative doctrines to Ptolemy's. During this study, he said, he encountered the ideas of the Pythagoreans concerning the motion of the earth. It was only then, assured by a tradition of antiquity, that in humanist fashion he began to consider the astronomical consequences of the earth's orbit, since he knew that "others before me had been given the same liberty" ("quia sciebam aliis ante me hanc concessam libertatem").³⁴⁶

³⁴⁵ I. Bernard Cohen, *Revolution in Science*, 1985, 1994, p. 112. He adds: "Copernicus mentioned with approval in both the *Commentariolus* and *De revolutionibus* the ancient doctrine of Callippus and Eudoxus, in which combinations of circular motions (or rotations of spheres) had been used to account for the phenomena" (*ibid*). Aristotle has "a body that moves in a circle has neither heaviness nor lightness for it cannot change its distance from the center" (*De Coelo*, 269b34f).

³⁴⁶ *Ibid.*, p. 488.

Copernicus seems to have tried to take the best from each school of Greek cosmology. While he borrowed a moving Earth from Pythagoras, he commandeered the crystalline spheres of Aristotle who believed the Earth was motionless in the center. Contrary to popular opinion, Copernicus' solar system was not one of free-floating planets pushed by natural forces around the sun, but the same Greek idea of crystal spheres, within which the planets were hung, that rotated around a center point. As Cohen puts it, "the only thing Copernicus did was transform the old Greek idea of earth-centered spheres into new sun-centered spheres." This can be seen in the original drawings made by Copernicus. Noel Swerdlow points out that in his original drawing Copernicus has "seven numbered captions and eight circles, so that it would appear that the captions do refer to the seven spaces between the circles," which correspond to "the spheres themselves, each being of a certain thickness...and everywhere contiguous to the sphere above and below it."³⁴⁷ Hence Cohen remarks that Copernicus' title, *De Revolutionibus Orbium Coelestium* ("On the Revolution of the Celestial Spheres") has the operative word "Spheres" for the very reason that he intended on keeping the Greek spheres in his cosmology. Later drawings of Copernicus' system tend to hide this fact, since the captions for the circles are put outside the circles' boundaries.³⁴⁸

Apparently, Copernicus understood his model as only an improvement on Ptolemy rather than a revolution in thinking. As Cohen notes, the "order and mode of presentation closely follow the plan of Ptolemy's *Almagest*."³⁴⁹ In that sense we might say that Copernicus' model had more of a psychological and philosophical influence than it had on improving the knowledge of the heavenly orbs. Still, in his "improvements," Barbour opines that Copernicus...

³⁴⁷ Noel Swerdlow, "Pseudodoxica Copernicana: or, enquiries into very many received tenets and commonly presumed truths, mostly concerning spheres," *Archives Internationales d'Histoire des Sciences* 26:108-158, 1976, as cited in Cohen's *Revolution in Science*, p. 110. The diagram of Copernicus' original system is now housed in the Jagiellonian Library, Cracow, Poland.

³⁴⁸ E.g., *Encyclopedia of Astronomy*, 2004, uses outside captions but claims it is a "Diagram of the heliocentric universe from...*De revolutionibus* of 1543" (p. 103).

³⁴⁹ *Revolution in Science*, pp. 109-110.

...comes under suspicion of plagiarism. In *De revolutionibus* his method of eliminating the equant is identical to Gutb al-Dīn's, while the Tūsī couple is used both in his theory of precession and in his model of Mercury's motion...his lunar theory is essentially that of Ibn al-shātir."³⁵⁰

Barbour adds the only thing that might save Copernicus from the charge is that independent discoveries are "commonplace in science."

In any case, since the 1510 *Commentariolus* allowed Copernicus to enjoy a certain distinction among various astronomers, he seemed a likely candidate to offer some help in fixing the calendar. Copernicus informed the pope, however, a further improvement could not be made until the motions of the sun and moon were more precisely coordinated, and thus he declined the pope's invitation.³⁵¹

Still, various Vatican officials continued to make overtures toward Copernicus. For example, in 1533, the personal secretary of Pope Clement VII, Johann Albrecht of Widmanstadt, gave a lecture on the heliocentric system to a chosen audience at the Vatican gardens.³⁵² Afterward, under

³⁵⁰ *Absolute or Relative Motion*, p. 231.

³⁵¹ Copernicus was correct about the difficulty, but such precision is not needed to coordinate a calendar. Still, the moon's motions remain one of the most complicated of all celestial bodies. As Kuhn notes: "The moon travels around the ecliptic faster and less steadily than the sun. On the average it completes one journey through the zodiac in $27\frac{1}{3}$ days, but the time required for any single journey may differ from the average by as much as 7 hours....Successive new moons may be separated by intervals of either 29 or 30 days, and only a complex mathematical theory, demanding generations of systematic observation and study, can determine the length of a specified future month. Other difficulties derive from the incommensurable lengths of the average lunar and solar cycles" (*The Copernican Revolution*, pp. 46-47). It is also known that the moon drifts tangentially from its orbit about 4cm/year. Hoyle adds: "The two most striking bodies in the sky, the Sun and Moon, cause difficulties at the outset, even before we come to the planets" (*Nicolaus Copernicus*, p. 53).

³⁵² Fantoli adds that Albrecht "had probably received his information on the Copernican theory from Theodoric of Radzyn, who at that time represented at Rome the chapter of Warmia, to which Copernicus as canon also belonged." Rewarded with an ancient codex, Albrecht wrote these words on it: "The Supreme Pontiff Clement VII gave me this codex in Rome in the year 1533 after which I had explained to him the opinion of Copernicus on the motion of the Earth in the Vatican gardens in the presence of Cardinals Francesco Orsini and Giuseppe

Paul III in 1535, Cardinal Nikolaus von Schönberg became interested in Copernicus and requested Theodoric of Radzyn to copy all of Copernicus' writings and have them sent to Rome. He then encouraged Copernicus in a private letter of 1536:

In it you maintain that the earth moves; that the sun occupies the lowest, and thus the central, place in the universe.... I entreat you, most learned sir, unless I inconvenience you, to communicate this discovery of yours to scholars.³⁵³

That Cardinal Schönberg was going against all previous Catholic tradition in his praise of Copernicus' system was certainly out of the

Salviati, of Giovanni Pietro, vescovo di Viterbo, and of the doctor, Matteo Curzio" (*For Copernicanism and for the Church*, p. 41). Pope Clement VII was the nephew of Lorenzo Medici, who ruled as the Grand Duchy of Tuscany from 1449-1492. The Grand Duchy of Tuscany was the head of about a half-dozen smaller Duchies in northern Italy (Duchy of Urbino to the west, Duchy of Modena to the north, etc.). Florence was in Tuscany, while Rome was part of the papal states directly to the south of Tuscany. Below the papal states was the kingdom of Naples and Sicily governed by Spain. Galileo would often seek refuge in Florence away from the pope in Rome, but he was often called back to Rome on such occasions.

³⁵³ The complete letter states: "Some years ago word reached me concerning your proficiency, of which everybody constantly spoke. At that time I began to have a very high regard for you, and also to congratulate our contemporaries among whom you enjoyed such great prestige. For I had learned that you had not merely mastered the discoveries of the ancient astronomers uncommonly well but had also formulated a new cosmology. In it you maintain that the earth moves; that the sun occupies the lowest, and thus the central, place in the universe; that the eighth heaven remain perpetually motionless and fixed; and that, together with the elements included in its sphere, the moon, situated between the heavens of Mars and Venus, revolves around the sun in the period of a year. I have also learned that you have written an exposition of this whole system of astronomy, and have computed the planetary motions and set them down in tables, to the greatest admiration of all. Therefore with the utmost earnestness I entreat you, most learned sir, unless I inconvenience you, to communicate this discovery of yours to scholars, and at the earliest possible moment to send me your writings on the sphere of the universe together with the tables and whatever else you have that is relevant to this subject. Moreover, I have instructed Theodoric of Reden to have everything copied in your quarters at my expense and dispatched to me. If you gratify my desire in this matter, you will see that you are dealing with a man who is zealous for your reputation and eager to do justice to so fine a talent. Farewell. Rome, 1 November 1536."

ordinary. Schöenberg was a progressive cleric who believed the Church needed to be reformed. Beyond that, however, the question lingers as to why such interest was showered on Copernicus' book, since the detailed math and geometry was somewhat beyond his expertise to judge, not to mention that he was well aware of the geocentric tradition of the Catholic Church stemming from the consensus of the Church Fathers and medievals. Something else was influencing Schöenberg and his immediate superior, Clement VII, that both looked favorably upon Copernicus. Part of the interest may have been generated by the persuasive lectures of Albrecht of Widmanstadt concerning Copernicus' *Commentariolus*. But due to the severity with which Paul III (1548), Paul V (1616) and Urban VIII (1633) would eventually condemn Copernicanism, Schöenberg was treading into uncharted territory. Whatever the real impetus for his interest, Schöenberg died the year after he wrote his 1536 letter to Copernicus, and Clement VII died the year after Albrecht's lectures. Paul III became pope in 1534 and a much more ominous cloud came over the horizon for Copernicus.

In 1541, pushed by the Lutheran, Andreas Osiander, Copernicus summoned the courage to present his work to Paul III, at least under the pretext his work was merely a "hypothetical" model having no intentions of promoting it as the actual system.³⁵⁴ Copernicus records this sequence of events in the Introduction to *De revolutionibus*:

³⁵⁴ Protestant reformer, Andreas Osiander, who wrote the Introduction to *De revolutionibus* (although he did so anonymously so as to leave room for the inference that Copernicus himself wrote it) and George Rheticus, Copernicus' Protestant confidant who vigorously sought for the publication of the book against his master's reticence, had different plans, however. Osiander's April 20, 1541 letter to Rheticus reveals the ploy: "The Aristotelians and theologians will easily be placated if they are told that several hypotheses can be used to explain the same apparent motions...and eventually they will go over to the opinion of the author" (quoted in Johannes Kepler's *Apologia Tychonis contra Ursum*, and published in the same's *Opera Omnia*, ed. Frisch, I, pp. 236-276, cited in Koestler's, *The Sleepwalkers*, p. 171). Based on a June 1542 letter from T. Forsther to J. Schrad, Koestler reasons that Copernicus knew of Osiander's Introduction but allowed it to be attributed to himself, and thus it became "the greatest scandal in the history of science" (*ibid.*, p. 169). Koestler concludes: "There is a strangely consistent parallel between Copernicus' character, and the humble, devious manner in which the Copernican revolution entered through the back door of history, preceded by

For not many years ago under Leo X when the Lateran Council was considering the question of reforming the Ecclesiastical Calendar, no decision was reached, for the sole reason that the magnitude of the year and the months and the movements of the sun and moon had not yet been measured with sufficient accuracy. From that time on I gave attention to making more exact observations of these things and was encouraged to do so by that most distinguished man, Paul, Bishop of Fossombrone, who had been present at those deliberations. But what have I accomplished in this matter I leave to the judgment of Your Holiness in particular and to that of all other learned mathematicians.³⁵⁵

Despite all the introductory fanfare, *De revolutionibus* was certainly not a smash hit in the annals of book publishing. The first run was a thousand copies, which never sold out. There were only four reprints in the next four hundred years. Compared to other books on astronomy being sold at that time, including Ptolemy's *Almagest*, whose reprints were in the hundreds, *De revolutionibus* had one reprint prior to 1700.³⁵⁶ One reason for its unpopularity was its unreadability. It was choppy, obtuse, and pedantic. The thrust of the theory fills fewer than twenty pages at the beginning of the book, roughly five percent of the whole treatise. More than half the book is filled with useless charts that prove nothing for Copernicus' case.

the apologetic remark: "Please don't take seriously – it is all meant in fun, for mathematicians only, and highly improbable indeed" (*ibid.*, p. 175).

³⁵⁵ *On the Revolutions of Heavenly Spheres*, trans. Charles G. Wallis, 1995, p. 7.

³⁵⁶ These included Jesuit Christopher Clavius' book *Treatise on the Sphere*, reprinted nineteen times; Philip Melanchthon's *Doctrine of Physics*, reprinted seventeen times, which refuted Copernicus' book. Claudius Ptolemaeus' book was originally titled μαθηματικὴ σύνταξις (*Mathematike Syntaxis*) in AD 142 but was renamed by Arab astronomers *Almagest*, which means "the greatest." As Toomer notes: "It was dominant to an extent and for a length of time which is unsurpassed by any scientific work except Euclid's *Elements*....In the late eighth and ninth centuries, with the growth of interest in Greek science in the Islamic world, the *Almagest* was translated, first into Syriac, then, several times, into Arabic. In the middle of the twelfth century no less than five such versions were still available....Two of these translations are still extant, those of al-Hajjāj and Ishāq-Thābit. In them we find the title of Ptolemy's treatise given as 'al-mjsty'. This is undoubtedly derived...from a Greek form μεγίστη (?sc. σύνταξις), meaning 'greatest [treatise]', but it is only later that it was incorrectly vocalized as al-majastī, whence are derived the mediaeval Latin 'almagesti,' 'almagestum,' the ancestors of the modern title 'Almagest'" (G. J. Toomer, *Ptolemy's Almagest*, London, Duckworth, 1984, pp. 1-2).

When the book reaches its end, there is little left of the original teaching, and thus Copernicus can offer no concluding statement, even though it was promised many times in the text. Truth be told, the main reason for its unpopularity was that it offered no real improvement over Ptolemy's model. In the *Introduction*, Copernicus claims he will rid cosmology of Ptolemy's cumbersome epicycle system, which had been in use for over a thousand years. To Paul III he writes:

For some make use of homocentric circles only, others of eccentric circles and epicycles, by means of which however they do not fully attain what they seek. For although those who have put their trust in homocentric circles have shown that various different movement can be composed of such circles, nevertheless they have not been able to establish anything for certain that would fully correspond to the phenomena. But even if those who have thought up eccentric circles seem to have been able for the most part to compute the apparent movements numerically by those means, they have in the meanwhile admitted a great deal which seems to contradict the first principles of regularity of movement.³⁵⁷

Theologically speaking, Paul III wasn't bothered by this assertion, since it appeared by his Preface that Copernicus exhibited no insistence on making the heliocentric model more than an intriguing hypothesis. Unbeknownst to the pope, however, Copernicus' solar system was in many instances more complicated than Ptolemy's. What Copernicus claimed as simplicity is one thing; what his work showed is quite another. Even a cursory reading of *De revolutionibus* reveals the model he proposed was complicated and uncertain.³⁵⁸ As one author observes:

³⁵⁷ *On the Revolutions of Heavenly Spheres*, p. 5.

³⁵⁸ Some of the things with which Copernicus had to contend are: the obliquity of the ecliptic; the intersection of the equator, ecliptic and meridian; declinations and ascensions of stars; angles of the ecliptic with the horizon; precessions of solstices and equinoxes; irregularities of the equinoctial precession; the magnitude and difference of the solar year; the irregularity of the sun's movement; the changes of the apsides; regular and apparent movement; the moon's very complicated and irregular movement; the unequal apparent diameter of the moon and its parallaxes; the mean oppositions and conjunctions of the sun and moon; ecliptic conjunctions; the irregular movements of the other planets; the latitudes of the planets; the planets' angles of obliquation; and many other issues.

What we call the Copernican revolution was not made by Canon Koppernigk. His book was not intended to cause a revolution. He knew that much of it was unsound, contrary to evidence, and its basic assumption unprovable.³⁵⁹As a result of all this, Canon Koppernigk's lifework seemed to be, for all useful purposes, wasted. From the seafarers' and stargazers' point of view, the Copernican planetary tables were only a slight improvement on the earlier Alphonsine tables, and were soon abandoned. And insofar as the theory of the universe is concerned, the Copernican system, bristling with inconsistencies, anomalies, and arbitrary constructions, was equally unsatisfactory, most of all to himself. In the lucid intervals between the long periods of torpor, the dying Canon must have been painfully aware that he had failed.³⁶⁰

One of the more obvious faults of *De revolutionibus* was for all its complaints against epicycles, in the end Copernicus produced more epicycles than Ptolemy. Ptolemy's system has forty epicycles, whereas Copernicus ends up with forty-eight. Yet in the earlier work, the *Commentariolus*, Copernicus stated his heliocentric system needed only thirty-four epicycles, and even this numeration was off by four.³⁶¹ What

³⁵⁹ *The Sleepwalkers*, p. 151. So reticent was Copernicus to publish his work for fear of ridicule that Rheticus, wishing to obscure the true author, published a summary of the contents and attributed the work to "the learned Dr. Nicolas of Torun," the town Copernicus was born.

³⁶⁰ Arthur Koestler, *The Sleepwalkers*, p. 126.

³⁶¹ Copernicus writes in the *Commentariolus*: "Then Mercury runs on seven circles in all; Venus on five; the earth on three, and round it the moon on four; finally Mars, Jupiter, and Saturn on five each. Altogether, therefore thirty-four circles suffice to explain the entire structure of the universe and the entire ballet of the planets," translated by E. Rosen in *Three Copernican Treatises*, 1971, cited in Barbour's *Absolute or Relative Motion*, p. 255. But Koestler remarks: "Incidentally, as Zinner has pointed out, even the famous count at the end of the *Commentariolus* is wrong as Copernicus forgot to account for the precession, the motions of the aphelia and the lunar nodes. Taking these into account, the *Commentariolus* uses thirty-eight not thirty-four circles," adding that Copernicus makes no mention of the total number of epicycles in *De revolutionibus*: "Apart from the erroneous reference to 34 epicycles, I have nowhere seen a count made of the number of circles in *De revolutionibus*" (*The Sleepwalkers*, p. 580), perhaps hiding the fact from his reader that it contained more epicycles than the *Commentariolus*. Gingerich adds: "Copernicus must have realized that with his small epicyclets he actually had more circles than the Ptolemaic computational scheme used in the Alfonsine Tables or for the Stoeffler ephemerides" (op. cit., p.

happened, of course, was since the *Commentariolus* was a preliminary thesis, Copernicus soon discovered that when the time came to work out the finer details of his system a couple of decades later, he was forced to add fourteen more epicycles just to make his version of celestial mechanics come close to the accuracy of Ptolemy's.³⁶² As such, Books IV and V are filled with pages of epicycle after epicycle. As one source describes Copernicus' use of epicycles:

58). Regarding the discrepancies among the orbits of Mars, Jupiter and Saturn in 1504, Gingerich writes: "...the evidence is firm that he had observed the cosmic dance at this time [1504] and was fully aware of the discrepancies in the tables. But what is most astonishing is that Copernicus never mentioned his observation, and his own tables made no improvement in tracking these conjunctions" (*ibid.*, p. 59).

³⁶² *The Sleepwalkers*, pp. 194-195. One reason Copernicus had so many epicycles is, rather than placing the sun in the center of the universe, he placed the Earth's entire orbit in the center (although, according to Gingerich: "this was an unresolved mystery in the book, for Copernicus hedged on the issue," *The Book that Nobody Read*, p. 163). Koestler says discrepancies on the number of epicycles is because most historians have not read Copernicus' book but depended on other biographers. Koestler's notes show that he did a painstaking analysis of *De revolutionibus* that allows him to conclude Copernicus used forty-eight epicycles (pp. 579-580). Gingerich accounts for these extra epicycles as follows: "While he [Copernicus] had eliminated all of Ptolemy's major epicycles, merging them all into the Earth's orbit, he then introduced a series of little epicycles to replace the equant, one per planet" (*The Book that Nobody Read*, pp. 54-55). For mistaken scholarly accounts that settled on Copernicus having only 34 epicycles, Koestler cites the *Chamber's Encyclopedia* as stating the Copernican system reduced the epicycles "from eighty to thirty-four," as is the case with Herbert Dingle's address to the *Royal Astronomical Society* in 1943. I found the same discrepancies. Ivars Peterson writes: "Copernicus needed more circles in his sun-centered model than Ptolemy did in his Earth-centered scheme [a] total of 34 circles for all the planets and the moon" (*Newton's Clock*, p. 54). Some add more epicycles: "To account for the apparent alterations in speed and movement of the planets, Copernicus was obliged to use as many as ninety Ptolemaic epicycles" (James Burke, *The Day the Universe Changed*, p. 134); "[Ptolemy] ultimately required 80 circles and nested epicycles" (*Introduction to Modern Astronomy I*, Peter A. Becker, George Mason Univ., lecture 4). Outlandish estimates include: "Although Copernicus introduced...about 40 epicycles to account for observations, he considered this a great improvement since the Ptolemaic theory contained more than 240 such epicycles" (Lloyd Motz and Annetta Duveen, *Essentials of Astronomy*, Wadsworth Publishing, CA, 1966, p. 135). Motz was an astronomer with a Ph.D. in physics from Columbia Univ.

His actual reason for this was because planetary observations indicated that even when the slowing down and speeding up of the observed planets due to retrograde motion was precisely accounted for, the planets still nevertheless did not seem to travel at uniform speed about the sun. Rather, the observations clearly demonstrated that they appeared to travel faster through space when closer to the sun and slower when further away from it. Indeed, this noted fact that the planets did not maintain a constant distance from the sun at all times in their orbits led Copernicus to offset his major orbital circles so that they were not precisely centered on the sun. Thus, in holding fast to his circles, and through his conviction that the speed of the planets was uniform, he was forced to retain small planetary epicyclical orbits as a subtle way to account for the continued presence of their apparent non-uniform motion about the sun....If one were to plot the actual path of one full orbit about the sun, the planet would be found to trace out an elongated circular path as opposed to an exact circle. Such is the result of combining two uniform circular orbits in the proscribed manner.³⁶³

Hence, Cohen remarks:

...the claim for a great simplicity of the Copernican system, as opposed to a great complexity of the Ptolemaic system, must therefore – insofar as the number of circles is concerned – be taken *cum grano salis*, in fact, with the whole saltcellar...it takes only the most cursory leafing through the pages of *De revolutionibus*...to be struck by Copernicus' use of epicycles page after page. Even a neophyte will recognize in the diagrams of *De revolutionibus* and the *Almagest* a kinship of geometrical methods and constructions that belies any simple claim that Copernicus's book is in any obvious sense a more modern or a simpler work than Ptolemy's."³⁶⁴

Copernicus is reported by Rheticus to have said to him that if his planetary theory agreed with the observed positions of the planets (that

³⁶³<http://www.ancient-world-mysteries.com/ancient-astrology.html>.

³⁶⁴ I. Bernard Cohen, *Revolution in Science*, pp. 111, 119-120. Cohen adds: "But of course Copernicus was fully aware that no set of simple circular motions could give an accurate representation of the heavenly world....Anyone conversant with astronomy would be aware that the diagram in book I of *De revolutionibus* was at best schematic, a greatly oversimplified model of the system" (p. 111). J. L. E. Dreyer says Copernicus' system had "a serious defect" (*History of the Planetary Systems from Thales to Kepler*, 1909, p. 342).

is, to within ten minutes of arc), he would be as well pleased with himself as Pythagoras had been when he discovered the famous theorem associated with his name. In fact, however, Copernicus never attained this accuracy. To see how large or small this value is, it may be pointed out that the average naked-eye observer can just distinguish as two a pair of near-by stars four minutes of arc apart. According to Neugebauer, ten minutes was considered adequate agreement of observation....Before long, ten minutes of arc was considered to be so far off the mark that a difference of approximately this magnitude between a theory and the observed positions of Mars determined by Tycho Brahe could decide that a theory was worthless and should be cast aside. For Kepler it was unthinkable that there could be an error of even eight minutes of arc in Tycho's planetary observations. The positions Tycho assigned to certain fundamental stars were generally less than one minute of arc from the true positions."³⁶⁵

More disturbing is, to make Ptolemy's model appear worse than it really was, Copernicus exaggerated the number of epicycles employed by his ancient rival. Although Ptolemy used only forty epicycles, Copernicus asserted he used eighty.³⁶⁶ This gives us a strong hint that perhaps Copernicus was not in this game merely to give the world a better model of cosmology; rather, he thought of it as an historic competition that allowed him to inflate his opponent's errors. As Barbour notes: "In fact, there are far fewer circles in the Ptolemaic scheme presented in the *Almagest* than many accounts would lead one to believe; Ptolemy was

³⁶⁵ *Revolution in Science*, p. 117.

³⁶⁶ Cohen remarks on Robert Palter's coining of the "80-34 syndrome" of those who desired to place Copernicus above Ptolemy. Owen Gingerich adds that the myth of having to put up with Ptolemaic epicycles perpetuated itself like an out-of-control gossip chain. He writes: "The legend reached its apotheosis when the 1969 *Encyclopedia Britannica* announced that, by the time of King Alfonso, *each planet* required 40 to 60 epicycles! The article concluded, 'After surviving more than a millennium, the Ptolemaic system failed; its geometrical clockwork had become unbelievably cumbersome and without satisfactory improvements in its effectiveness.' When I challenged them, the *Britannica* editors replied lamely that the author of the article was no longer living, and they hadn't the faintest idea if or where any evidence for the epicycles on epicycles could be found" (*The Book that Nobody Read*, pp. 56-57). Elsewhere Gingerich adds: "the Copernican system is slightly more complicated than the original Ptolemaic system" ("Crisis versus aesthetic in the Copernican revolution," *Vistas in Astronomy*, 17, p. 87, 1975.

remarkably economic in his use of circular motions.”³⁶⁷ But most astronomers perpetuate an illusion about Copernicus. Cohen remarks again:

A biography of Copernicus, subtitled “The Founder of Modern Astronomy,” would have us believe that “by making the Earth rotate on an axis and revolve in an orbit, Copernicus reduced by more than half the number of circular motions which Ptolemy had found it necessary to postulate.”³⁶⁸

As it stands, Ptolemy’s equant made his model much more economical. Copernicus had to add a second circular epicycle (or epicyclet) to do what Ptolemy’s equant had easily accomplished; and Copernicus was compelled to do so because he believed Ptolemy, by introducing the equant, had departed from strict circular motion. Ptolemy’s equant was so versatile that it would rival Kepler’s ellipses, for it allowed the planets to sweep out the same area per unit time of revolution that Kepler’s famous Second law of motion (the “equal area law”) would eventually accomplish a millennia and a half later.

The complexity of Copernicus’ heliocentric system stems from the fact that most of the charts and figures in *De revolutionibus* were not original. Copernicus merely borrowed them from the Greeks and then reworked the figures to fit his heliocentric model:

Canon Koppernigk was not particularly fond of star-gazing. He preferred to rely on the observations of Chaldeans, Greeks, and Arabs – a preference that led to some embarrassing results. *The Book of the Revolutions* contains, altogether, only twenty-seven observations made by the Canon himself; and these were spread over thirty-two years!...Even in the position he assumed for his basic star, the Spica, which he used as a landmark, was erroneous by about forty minutes’ arc, more than the width of the moon.³⁶⁹

The great scholar on early astronomy, Otto Neugebauer, writes:

³⁶⁷ Julian Barbour, *Absolute or Relative Motion*, p. 184.

³⁶⁸ I. Bernard Cohen, *Revolution in Science*, p. 119.

³⁶⁹ Koestler, *The Sleepwalkers*, p. 125.

The popular belief that Copernicus' heliocentric system constitutes a significant simplification of the Ptolemaic system is obviously wrong. The choice of the reference system has no effect on the structure of the model, and the Copernican models themselves require about twice as many circles as the Ptolemaic models and are far less elegant and adaptable.³⁷⁰

Modern historians, making ample use of the advantage of hindsight, stress the revolutionary significance of the heliocentric system and the simplification it had introduced. In fact, the actual computation of planetary positions follows exactly the ancient patterns and the results are the same. The Copernican solar theory is definitely a step in the wrong direction for the actual computation as well as for the underlying kinematic concepts.³⁷¹

Koestler adds:

Alexandrian astronomers can hardly be accused of ignorance. They had more precise instruments for observing the universe than Copernicus had; Copernicus himself hardly bothered with star-gazing; he relied on the observations of Hipparchus and Ptolemy. He knew no more about the actual motions of the stars than they did. Hipparchus' Catalogue of the fixed stars and Ptolemy's Tables for calculating planetary motions were so reliable and precise that they served, with insignificant corrections, as navigational aids to Columbus and Vasco da Gama. Eratosthenes, another Alexandrian, computed the diameter of the Earth as 7,850 miles with an error of only $\frac{1}{2}$ per cent. Hipparchus calculated the distance of the moon as $30\frac{1}{4}$ Earth diameters – with an error of only 0.3 per cent. Thus, insofar as factual knowledge is concerned, Copernicus was no better off, and in some respects worse off, than the Greek astronomers of Alexandria who lived at the time of Jesus Christ.³⁷²

³⁷⁰ Otto Neugebauer, *The Exact Sciences in Antiquity*, 1957, p. 204.

³⁷¹ Otto Neugebauer, "On the Planetary Theory of Copernicus," *Vistas in Astronomy* 10, p. 103, 1968.

³⁷² Arthur Koestler, *The Sleepwalkers*, p. 73. NB: Before the invention of the telescope, an accurate measurement of the distance between the sun and the Earth was not possible. Ptolemy had estimated the distance to be 610 Earth diameters, while Copernicus estimated it to be 571 Earth diameters. The actual distance is 11,500 Earth diameters.

Along these lines, Thomas Kuhn reveals the modern misconception of Copernicus:

But this apparent economy of the Copernican system, though it is a propaganda victory that the proponents of the new astronomy rarely failed to emphasize, is largely an illusion....The seven-circle system presented in the First Book of the *De revolutionibus*, and in many modern elementary accounts of the Copernican system, is a wonderfully economical system, but it does not work. It will not predict the position of planets with an accuracy comparable to that supplied by Ptolemy's system.³⁷³

To drive home the point, Kuhn adds:

...this brief sketch of the complex system of ...Copernicus...indicates the third great incongruity of the *De revolutionibus* and the immense irony of Copernicus' lifework. The preface to the *De revolutionibus* opens with a forceful indictment of Ptolemaic astronomy for its inaccuracy, complexity, and inconsistency, yet before Copernicus' text closes, it has convicted itself of exactly the same shortcomings. Copernicus' system is neither simpler nor more accurate than Ptolemy's. And the methods that Copernicus employed in constructing it seem just as little likely as the methods of Ptolemy to produce a single consistent solution of the problem of the planets. The *De revolutionibus* itself is not consistent with the single surviving early version of the system, described by Copernicus in the early manuscript *Commentariolus*. Even Copernicus could not derive from his hypothesis a single and unique combination of interlocking circles, and his successors did not do so....Judged on purely practical grounds, Copernicus' new planetary system was a failure; it was neither more accurate nor significantly simpler than its Ptolemaic predecessors.³⁷⁴

³⁷³ Thomas S. Kuhn, *The Copernican Revolution: Planetary Astronomy in the Development of Western Thought*, 1957, 1959, p. 169. N. R. Hanson adds: "...in no ordinary sense of 'simplicity' is the Copernican theory simpler than the Ptolemaic" (*Constellations and Conjectures*, Dordrecht, D. Reidel, 1973. Cited in Imre Lakatos' *The Methodology of Scientific Research Programmes*, p. 175).

³⁷⁴ Thomas S. Kuhn, *The Copernican Revolution: Planetary Astronomy in the Development of Western Thought*, p. 171. Herbert Butterfield adds: "[Copernicus] was puzzled by the variations he had observed in the brightness of the planet Mars...Copernicus' own system was so far from answering to the phenomena in

Having heard of his fame, a fellow heliocentrist and non-Catholic, Georg Joachim Rheticus,³⁷⁵ visited with Copernicus in 1539. After befriending Copernicus and reading his works, Rheticus worked very hard in convincing him to publish his *De revolutionibus*. Prior to Copernicus' decision, Rheticus wrote a summary version of Copernicus' work titled *Narratio prima* in 1540.³⁷⁶ It was Rheticus' purpose to do all he could to disseminate the heliocentric universe. With the help of the Protestant publisher Johannes Petreius,³⁷⁷ Rheticus acquired the services of Lutheran Andreas Osiander to write a preface for *De revolutionibus*. After years of labor, Rheticus was finally nearing success, but he did not get to see the final draft of *De revolutionibus* before it was published. In the meantime, Copernicus had suffered a stroke in December 1542, but his book was finally published in March 1543 by Petreius, and Copernicus had died shortly thereafter.

In regard to his heliocentric theory, Copernicus consistently appealed to the “harmony” of his system, but it was a harmony ennobled by a sun that he personified, and, some say, deified. Copernicus writes:

In the middle of all sits Sun enthroned. In this most beautiful temple could we place this luminary in any better position from which he can illuminate the whole at once? He is rightly called the Lamp, the Mind, the Ruler of the Universe: Hermes Trismegistus names him the Visible God, Sophocles' Electra calls him the All-seeing. So the Sun sits as

the case of Mars that Galileo in his main work on this subject praises him for clinging to his new theory though it contradicted observation....” (*The Origins of Modern Science: 1300-1800*, p. 37).

³⁷⁵ Rheticus' original name was Georg Joachim Iserin. His father, Georg Iserin, had been convicted of various crimes (either sorcery or theft, or both) and was executed. Families of the executed were required to change their last name. He chose “Rheticus” from the region of Rhaetia from where his mother originated.

³⁷⁶ Rheticus writes in the *Narratio*: “...each of the planets, by its position and order and every inequality of its motion, bears witness that the earth moves and that we who dwell upon the globe of the earth, instead of accepting its changes of position, believe that the planets wander in all sorts of motions of their own” (translated by Edward Rosen, in *Three Copernican Treatises*, 1971, p. 165).

³⁷⁷ Petreius published works on Luther, Erasmus, Melancthon, Henry VIII, Regiomontanus and Gasser. Although he also published a few works by Augustine, Calvin and Luther had commandeered some of Augustine's works on predestination for the cause of Protestantism.

upon a royal throne ruling his children the planets which circle round him. The Earth has the Moon at her service. As Aristotle says, in his *On Animals*, the Moon has the closest relationship with the Earth. Meanwhile the Earth conceives by the Sun, and becomes pregnant with an annual rebirth.³⁷⁸

Karl Popper shows the origin of these cultic ideas:

Copernicus studied in Bologna under the Platonist Novara; and Copernicus' idea of placing the sun rather than the Earth in the center of the universe was not the result of new observations but of a *new interpretation* of old and well-known facts in the light of semi-religious Platonic and Neo-Platonic ideas. The crucial idea can be traced back to the sixth book of Plato's *Republic*, where we can read that the sun plays the same role in the realm of visible things as does the idea of the good in the realm of ideas. Now the idea of the good is the highest in the hierarchy of Platonic ideas. Accordingly the sun, which endows visible things with their visibility, vitality, growth and progress, is the highest in the hierarchy of the visible things in nature....Now if the sun was to be given pride of place, if the sun merited a divine status...then it was hardly possible for it to revolve about the Earth. The only fitting place for so exalted a star was the center of the universe. So the Earth was bound to revolve about the sun. This Platonic idea, then, forms the historical background of the Copernican revolution. It does not start with observations, but with a religious or mythological idea.³⁷⁹

³⁷⁸ *De revolutionibus*, "10. Of the Order of the Heavenly Bodies," as cited in *The Copernican Revolution*, pp. 179-180 (Kuhn's translation from the Latin). Charles Glenn Wallis' translation (or his editor's), although similar, seems desirous to lessen Copernicus' deification of the sun by using slightly different wording and lower case letters: "In the center of all rests the sun. For who would place this lamp of a very beautiful temple in another or better place than this wherefrom it can illuminate everything at the same time? As a matter of fact, not unhappily do some call it the lantern; others, the mind, the pilot of the world. Trismegistus calls it a 'visible god'; Sophocles' Electra, 'that which gazes upon all things.' And so the sun, as if resting on a kingly throne, governs the family of stars which wheel around. Moreover, the Earth is by no means cheated of the services of the moon; but as Aristotle says in the *De Animalibus*, the Earth has the closest kinship with the moon. The Earth moreover is fertilized by the sun and conceives offspring every year" (*On the Revolutions of Heavenly Spheres*, 1995, pp. 24-26).

³⁷⁹ *Conjectures and Refutations: The Growth of Scientific Knowledge*, p. 187. Popper is referring to Dominicus Maria da Novara, a mathematician and

Popper, being a supporter of the heliocentric revolution, couches his critique of Copernicus in rather polite terms, but essentially he is saying Copernicus' brainchild had all the earmarks of originating from pagan sun-worship. As Wolfgang Smith notes:

...in the Renaissance movement championed by Marsiglio Ficino, the doctrine came alive again, but in a somewhat altered form; one might say that what Ficino instituted was indeed a religion, a kind of neo-paganism. Copernicus himself was profoundly influenced by this movement, as can be clearly seen from numerous passages in the *De revolutionibus*.³⁸⁰

Upon reading *De revolutionibus*, one is struck by the preponderance of philosophical and humanistic arguments Copernicus brings to his aid. As J. D. Bernal notes: “[Copernicus’] reasons for his revolutionary change were essentially philosophic and aesthetic,” and in a later edition he is more convinced the “reasons were mystical rather than scientific.”³⁸¹ Overall, Copernicus presents about five-dozen arguments, at least half of which are solely philosophical in nature. Although the other half of his argumentation depends more on mechanics, these also have philosophical appendages to them. Very few of his arguments are based on his own personal observations, since, as we noted earlier, Copernicus merely reworked the observations of his Greek predecessors. In fact, Copernicus concludes, because the Greeks did not detail their cosmological models

astronomer in Italy. Indulging in a bit of anachronistic evaluation, Popper goes on to defend him, suggesting that even though Copernicus' idea came before the observation, he was nevertheless correct and “not a crank.” More of Popper's *a-posteriori* thinking appears later in the book: “The Copernican system, for example, was inspired by a Neo-Platonic worship of the light of the Sun who had to occupy the ‘centre’ because of his nobility. This indicates how myths may develop testable components. They may, in the course of discussion, become fruitful and important for science” (*ibid.*, p. 257).

³⁸⁰ Wolfgang Smith, *The Wisdom of Ancient Cosmology*, p. 174. Copernicus was also influenced heavily by the liberal humanist, Codrus, who was known for denying various Church doctrines.

³⁸¹ J. D. Bernal, *Science in History*, 1st edition, London, Watts, 1954; 2nd edition, 1965. Cited in Lakatos, *Methodology of Scientific Research Programmes*, p. 129.

more thoroughly, history (and God) have called upon him to provide the long-awaited documentation of true cosmology.³⁸²

But if one were to read *De revolutionibus* to discover a geometric sun that corresponded to Copernicus' deified sun, he would be at a loss. For all Copernicus' talk about the sun, it rarely appears in the diagrams of his book. It is replaced by "C" to designate the center. He said the sun was *near* the center, but he really didn't know where to put it. Copernicus was mainly interested in moving the earth, but not necessarily moving it precisely around the sun. The Copernican Revolution, in essence, was a revolution to get the earth moving. The details of how to achieve that goal were certainly not accomplished with either Copernicus or Galileo.

Fr. Robinson: The highest figures in the Church at the time seemed to see it the same way, for the Pope and his entourage received Copernicus in the Vatican Gardens and listened with interest to his lectures on heliocentrism (quoting Jaki, *Bible and Science*. P. 116). There was no reason for Catholics to feel threatened by it, since it had been discussed extensively in medieval Christendom by figure such as Father Jean Buridan and Bishop Nicolas Oresme. The latter proposed a new interpretation of the halting of the sun in Josue 10:12-14, compatible with heliocentrism, and Copernicus used the non-Biblical arguments of the medievals to defend the Earth's daily rotation.

³⁸² Thomas Heath sheds more light on this connection: "Copernicus himself admitted that the [heliocentric] theory was attributed to Aristarchus, though this does not seem to be generally known....But it is a curious fact that Copernicus did mention the theory of Aristarchus in a passage which he afterwards suppressed: 'Credibile est hisce similibusque causis Philolaum mobilitatem terrae sensisse, quod etiam nonnulli Aristarchum Samium ferunt in eadem fuisse sentential.'" Heath also shows by quotes from Plutarch and Archimedes that Aristarchus was the originator of the heliocentric view (Thomas Heath, *Aristarchus of Samos: The Ancient Copernicus*, 1913, p. 301ff). J. L. E. Dreyer provides a more readable translation of Archimedes' words: "You know that according to most astronomers the world (κόσμος) is the sphere, of which the center is the center of the earth, and whose radius is a line from the center of the earth to the center of the sun. But Aristarchus of Samos has published in outline certain hypotheses, from which it follows that the world is many times larger than that. For he supposes (ὕποτιθέται) that the fixed stars and the sun are immovable, but that the earth is carried round the sun in a circle which is in the middle of the course..." (J. L. E. Dreyer, *History of the Planetary Systems from Thales to Kepler*, 1906, p. 136).

Jaki quotes the famous historian of science Alexandre Koyré summing up the situation:

While Copernicus found encouragement on the part of high dignitaries of the Catholic Church...even from Pope Paul III who accepted the dedication [of Copernicus' work], Luther and Melanchthon went on the attack already before its publication. (pp. 264-265).

R. Sungenis: As usual, Fr. Robinson leaves out the parts he doesn't like in the history, and so does Jaki. The truth is, there was a very brief period, right after Oslander (the Lutheran) published Copernicus' work, when Pope Paul III entertained it. Although Fr. Robinson says, "There was no reason for Catholics to feel threatened by it," the truth is, within a couple of years all Copernican books were condemned. As even Kepler recognized about this period:

All the popes since 1542...have interpreted Scripture in such a way that none of them have so far accused Copernicus – even apart from the fact that Copernicus dedicated his work *De revolutionibus* to Paul III – of error or of heresy.³⁸³

Rheticus' heliocentric works, including the earlier pro-Copernican work, *Narratio prima*, were all placed on the *Index of Forbidden Books* published between 1559-1593, with a subsequent suppression of *Narratio* ordered by the Inquisition in 1598.³⁸⁴

As we noted earlier, Pope Paul III, having the historical distinction of forming the Congregation of the Roman Inquisition in 1542 for the precise purpose of defending the Catholic Church from heresy,³⁸⁵ the time had come for a confrontation with those who were teaching that Scripture need not be interpreted literally when it addressed issues of cosmology. The fact

³⁸³ "Antwort auf Roeslini Diskurs," Kepler's *Gesammelte Werke*, 4:106, lines 18-20, translated by Michel-Pierre Lerner in *The Church and Galileo*, p. 19. Lerner also notes Kepler saying the same in 1605 (*ibid*, 15:183, no. 340, lines 95-102).

³⁸⁴ Lerner notes that the suppression of *Narratio prima* was "recently discovered" in a "document from the Arch episcopal Curia of Naples."

³⁸⁵ Also known as the Congregation of the Holy Office or the Sacred Congregation. In 1965, Pope Paul VI changed the name to the Congregation for the Doctrine of the Faith.

that Copernicus' book, *De revolutionibus*, was printed by a Lutheran who also had printed other non-Catholic works the Inquisition had censored, added a flavor of animosity to the issue that only religious disputes can generate. Bartolomeo Spina, the Master of the Sacred Palace from 1542 until his death in 1547, sought to have Copernicus' book banned, which was eventually carried out by his Dominican colleague Giovanimaria Tolosani, who died two years later in 1549. Apparently, Osiander's "hypothetical" disclaimer did not persuade these particular censors. Similar to Copernicus' effort to persuade Paul III, Tolosani wrote a detailed geocentric treatise in 1546, which he dedicated to Paul III and which included an endorsement from Spina. In it Tolosani vehemently rejected Copernicus' universe and declared it an extreme danger to the faith precisely because of its attempt to deliteralize Sacred Scripture.³⁸⁶

As the 16th century reached the midway point, the staunchest anti-Copernican of the day was the Jesuit Christoph Clavius (d. 1612). He writes in his highly esteemed work:

We conclude, then, in accordance with the common doctrine of the astronomers and the philosophers, that the earth lacks any local motion, either rectilinear or circular, and that the heavens themselves revolve continually round it.... Holy Scripture is also in favor of this doctrine, stating in a great number of places that the earth is stationary. It also bears witness to the fact that the sun and the other heavenly bodies are in motion.³⁸⁷

One of the clearest official and authoritative statements from the Catholic Church defending the doctrine of geocentrism comes from the catechism

³⁸⁶ The work's title is: *On the Highest Immobile Heaven and the Lowest Stable Earth, and All Other Movable Heavens and Intermediate Elements*. Tolosani insisted Copernicus' teaching "could easily provoke discord between Catholic commentators on Holy Scripture and those who have resolutely decided to follow this false opinion. It is in order to avoid such scandal that we have written this short work" (English translation of the French translation *Aux origins*, p. 708, cited in *The Church and Galileo*, pp. 15-16).

³⁸⁷ In *Sphaeram Ioannis de Sacro Bosco Commentarius*, Rome 1570, pp. 247-248, cited in *The Church and Galileo*, p. 18, 31. Clavius uses Psalms 19:5-6; 104:5 and Ecclesiastes 1:4-6 for his main support. See also: James Lattis' *Between Copernicus and Galileo: Christoph Clavius and the Collapse of Ptolemaic Cosmology*, University of Chicago Press, 1994.

issued under the decree of Pope Pius V, known as *The Catechism of the Council of Trent* or more simply, *The Roman Catechism*. In light of its date, 1566, the Catechism comes as more or less the capstone to the Church's position since it had already rejected both Rheticus' and Copernicus' books on heliocentrism in the 1540s and put them both on the Index in 1559. The Catechism comes just seven years after the Index.

In its first instance of teaching geocentrism, the Catechism states:

...He also gave to the sun its brilliancy, and to the moon and stars their beauty; and that they might be for signs, and for seasons, and for days and years. He so ordered the celestial bodies in a certain and uniform course, that nothing varies more than their continual revolution, while nothing is more fixed than their variety.³⁸⁸

Although this wording is somewhat brief, it correctly describes the Church's historical position. It states clearly that the "sun...the moon and stars" are "celestial bodies" which move with a "certain and uniform course" and does not say that the Earth moves among them. Rather, to expel any doubt about what objects are revolving the catechism adds that the sun, moon and stars have a "continual revolution." Although the unspecified reference to "revolution" might cause a heliocentrist to infer the sun's revolution does not necessarily mean it is revolving around the Earth, a few pages later the catechism disallows that inference by stating the following:

The Earth also God commanded to stand in the midst of the world, rooted in its own foundation and made the mountains ascend, and the plains descend into the place which he had founded for them....³⁸⁹

³⁸⁸ *The Roman Catechism, The Catechism of the Council of Trent*, translated by John A. McHugh, O.P. and Charles J. Callan, O.P., Tan Publishing, 1982, p. 27. This particular translation has a Nihil Obstat and Imprimatur, issued January 1923. The 1829 version says the same: "[God] so ordered the celestial orbs in a certain and constant course, that nothing can be seen more variable than their continual revolution, nothing more certain than that variety" (*Catechism of the Council of Trent*, Article 16, Chapter 2, translated by Fr. O'Donovan, Dublin, James Duffy and Sons, n. d., p. 38).

³⁸⁹ *Ibid.*, p. 28. The 1829 version reads: "God also, by his word, commanded the earth to stand in the midst of the world, 'founded upon its own basis'" (Article 18,

Some have advanced the argument in the above passage the word “Earth” (Latin: *terram*) should be translated as “dry land,” and that “world” (Latin: *mundus*) should be translated “Earth.” This translation portrays a “dry land” distinct from air and water, which was then filled with plants and animals, both of which are situated on the Earth.³⁹⁰ As such, the passage would not be demonstrating an Earth in the center of the universe but merely a dry land placed on the Earth. This particular interpretation is eliminated, however, by the fact that the Catechism specifies the *terram* stands in the “midst” or middle of the *mundus*. At creation, dry land was not made to be, or said to be, in the “midst” of the Earth. It is only said to be separated from water (see Gn 1:9). The dry land covered various parts of the surface of the earth, not the midst or middle of the Earth. If the translation were “the midst of the Earth” it would refer to the center of the Earth, since the “midst” or “middle” of a sphere can only be the center of the sphere. Conversely, the surface of the land on the Earth does not possess a “midst” or middle position. Hence, the only way “midst” can make sense is if the Earth was placed in the middle of a rotating universe. Not surprisingly, this solution fits very well with the Catechism’s statements about the sun and stars which, “by their motions and revolutions,” must revolve around a central point, the “midst” or middle of the universe.

The Roman Catechism then says the following toward the end:

Chapter 1). NB: the word “world” is from the Latin *mundus*, which means “universe.” The clause “founded upon its own basis” may refer to the fact that, if the Earth were the universe’s center of mass, it would be independent of all inertial forces, remaining in the center while neither resting upon or suspended by any force or object. As Job 26:7 says: “He...hangs the earth upon nothing.”

³⁹⁰ Argued by David Palm in a 2010 debate with the author. Palm states: “Notice again that the Catechism states that God clothed the *terram* with ‘trees and every variety of plant and flower.’ He also filled it with living creatures, ‘as He had already filled the air and water.’ In other words, this *terram* is something distinct from the air and the water. The passage makes perfect sense if *terram* means ‘dry land,’ as it does in Gen 1:10. It makes no sense whatsoever if it means the entire earth, as in ‘the globe’—which is what the neo-geo needs it to say.” (See “Response to David Palm on Tridentine Catechism,” Debate 2, at <http://www.galileowaswrong.com>).

But though God is present in all places and in all things, without being bound by any limits, as has been already said, yet in Sacred Scripture it is frequently said that He has His dwelling in heaven. And the reason is because the heavens which we see above our heads are the noblest part of the world, remain ever Incorruptible, surpass all other bodies in power, grandeur and beauty, and are endowed with fixed and regular motion.³⁹¹

A few pages later the Catechism confirms its cosmology and the God who designed it:

...all goods both natural and supernatural, must be recognized as gifts given by Him from whom, as the Church proclaims, proceed all blessings. If the sun by its light, if the stars by their motion and revolutions, are of any advantage to man; if the air with which we are surrounded serves to sustain us...nay, those very causes which philosophers call secondary, we should regard as so many hands of God, wonderfully fashioned and fitted for our use, by means of which He distributes His blessings and diffuses them everywhere in profusion.³⁹²

Up to the publishing of the *Roman Catechism*, we see the following in the Church's teaching on the universe:

- the sun and stars move. It never says the earth moves and, in fact, says the Earth “stands still.”
- the sun and stars move in continual revolution. The only “revolution” that science and the Church knew was the stars and sun revolving around the Earth.
- Oresme suggested the Earth might be rotating, but such diurnal motion was rejected by the Church in 1541, 1548, and placed on the Index in 1559, as well as condemning both in 1616 and 1633.
- Cusa said the Earth could be moving but not necessarily by rotating or revolution, but this was also rejected in 1541, 1548, and placed on the Index in 1559, as well as condemning both in 1616 and 1633.

³⁹¹ *Ibid.*, pp. 511-512.

³⁹² *Ibid.*, p. 516.

- the Tridentine catechism entertained no alternate scientific theory (*i.e.*, heliocentrism) when it supported geocentrism. It made no statement accepting heliocentrism. It made no mention of acentrism, or any other view. It gave no credence to Oresme, Cusa, Buridan, Aristarchus, Pythagoras or any view that said the earth moved.
- the authors of the Tridentine catechism knew the Catholic tradition believed the Earth did not move and it makes no statement indicating a break with the Church's tradition, including no break against the consensus of the Fathers on geocentrism.

One of the more significant facts regarding the *Roman Catechism's* dogmatic assertion of geocentrism is that it remained unchanged in all subsequent editions, including the last Roman Latin version in 1907 and the 1914 edition published in Turin, which, incidentally, was just three years before the Fatima visions of 1917 showing the sun moving in the sky. Obviously, no editor saw fit to remove the geocentric teaching from the catechetical regimen of Catholic doctrine. The introduction states:

The original manuscript of the Catechism is not extant. But of the innumerable Latin editions that have appeared, the earliest are: The Manutian (Rome, 1566), so called because it was printed by Paulus Manutius by command of Pope Pius V....Among later Latin editions may be mentioned the following issued at Rome: The edition of 1761, which contains the Encyclical of Clement XIII on the excellence and use of the Roman Catechism; the Propaganda editions of 1858, 1871 and 1907.³⁹³

Also highly significant is the Roman Catechism makes a point of not only reiterating the dogmatic decrees from the Council of Trent, but its purpose was to “examine every statement in the Catechism from the viewpoint of doctrine,”³⁹⁴ which requires us to conclude that among the statements subjected to the prescribed analysis were the four geocentric catechetical

³⁹³ *Ibid.*, p. xxvi. Even later, namely 1969, is the French version of Roman Catechism, *Catechisme du Concile de Trente* (Paris: Itinéraires, 1969, p. 30), stating: *Dieu affermit aussi la terre sur sa base, et par sa parole Il lui fixa sa place au milieu du monde* (“The earth also God commanded to stand in the midst of the world, rooted in its own foundation”).

³⁹⁴ *Ibid.*, p. xxv.

teachings noted above. This is a clear indication Pius V understood geocentrism as Catholic doctrine.

Fr. Robinson: The first real crossing of swords between the Bible and science was begun by a set of men who had set the Bible about reason, something the Church had never done. This paved the way for a constant conflict between religion and science that endures to this day and is personified by the ‘creation science’ movement. (p. 265).

R. Sungenis: So, after Fr. Robinson distorts the history of what actually occurred between 1543 and the remainder of the 1500s, he then makes it appear only Luther and Calvin were the cause of the rejection of Copernicus, and because of this there would be a “constant conflict between religion and science.” This is because Fr. Robinson doesn’t give one word of the Catholic response to Copernicus, namely, it was against his heliocentric system much more than the Protestants. So much for Fr. Robinson’s “reason.” If this is the type of “reasoning” he uses to judge the history and its outcome then his book isn’t worth the paper it is written on. In brief, Fr. Robinson distorts either the history or the biblical text so that his “reason” always comes out on top.

Fr. Robinson: Modern-day Biblicists are not opposed to science in itself; they are just opposed to science finding anything that conflicts with their interpretation of the Bible. As we have already seen, the Bible read both literally and scientifically advocates a picture of the Earth that is manifestly wrong. Thus, we should expect the creationists to hold that the Earth is flat, with a roof above it, and a massive abyss of water surrounding its sides. They are not, however, consistent in their literalism, and so do not embrace all of the science that the Bible supposedly teaches. (p. 265).

R. Sungenis: It’s easy to accuse the “biblicists” when Fr. Robinson creates straw men like a flat Earth with a roof above it. Of course, Fr. Robinson’s substitute interpretation is actually worse than the “biblicists,” since he hardly pays attention to anything Genesis 1 says. At least the “biblicists” struggle to be faithful to the text, even though some may not get to the precise interpretation needed. As long as Fr. Robinson, led by other liberal scholars, continue to make a caricature of Genesis 1:6-9 as teaching a flat Earth with a dome, they will only expose themselves as biased

historiographers, not competent exegetes. It is easy to tell Fr. Robinson has not done any real study on the text of Genesis 1:6-9, or the Hebrew word *raqiya* (firmament), or even attempted to find a cogent interpretation of the text to fit the context.

But all he really had to do was recognize the firmament represents inner and outer space, space itself being a substance, since it cannot be nothing. Hence the birds can “fly on the face of the firmament” (Genesis 1:20) and the sun and stars can be placed “in the firmament.” Obviously, birds can’t fly “in a roof” and celestial bodies can’t be placed “in a roof,” since a roof has no room for either one. And, of course, once the dome is gone, the Earth doesn’t have to be flat, and this would correspond with all the other passages that imply the Earth is a sphere (*cf.* Is 40:22; Jb 22:14; Pr 8:27).³⁹⁵ And once we get rid of Fr. Robinson’s unproven notion that light must have a celestial body from which to exist, then we’ve dismissed the objection there cannot be two lights in Genesis 1 (*e.g.* the Light of the First day and the light from the sun and stars of the Fourth day). And once we get rid of Fr. Robinson’s unproven notion the Earth cannot come before the sun and stars (*e.g.*, his belief in the Big Bang) by showing that an Earth in the center of a rotating universe is much more stable than an Earth whizzing through space at 67,000 mph and turning on an axis at 1040 mph, with a sun moving thousands of miles an hour around the galaxy, and the galaxy revolving around something else; in addition to a universe that has to expand; and require *ad hoc* things like inflation and dark energy to make it work, we are well on our way to exegeting Genesis 1 for what it actually says rather than what some want it to say to fit their preconceived ideas.

³⁹⁵ See my book: *Flat Earth/Flat Wrong: An Historical, Biblical and Scientific Analysis*, CAI Publishing, Inc., 2018, at www.flatearthflatwrong.com.

GEOCENTRISM: ROUND ONE

Fr. Robinson: First comes geocentrism. In point of fact, there are very few fundamentalist Protestants who hold that the Earth is motionless and the centre of the universe. There is, however, a Protestant convert to Catholicism, Robert Sungenis, who has dedicated himself to promote the theory, and his primary motivation is his belief that geocentrism is taught infallibly by the Bible. He wrote a 1000 page work, *Galileo Was Wrong: The Church Was Right* in order to convince readers to ‘give Scripture its due place, and show that science is not all it’s cracked up to be.’ (p. 266).

R. Sungenis: Fr. Robinson gets it wrong again. Perhaps if he had interviewed me he would have had an easier time, but as he admitted, he made a conscious decision *not* to contact me when he wrote his book. First, I am not a Protestant convert. I am a Catholic revert, that is, I was born into the Catholic faith as an infant, but at the age of nineteen I went on a 17-year trek through various Protestant churches and came back to the Catholic Church at age 38.

Secondly, the *Galileo Was Wrong* is not a “1000 page work,” it is a 2200-page work, and Fr. Robinson would have known this had he bought or asked me for a copy. So all this tells me is that Fr. Robinson didn’t even bother reading the book before he began to criticize it.

Thirdly, since Fr. Robinson quotes from a newspaper article written by a critic, he misconstrues (probably intentionally, since the quote appears to paint me as a Protestant depending only on Scripture) what my true motivation was in writing *Galileo Was Wrong*. The true motivation—and Fr. Robinson would have seen this had he read my book—was to defend the Church’s decision against Galileo so the Church would once again show itself to be guided by the Holy Spirit into all truth, never once being abandoned by Him, and never once officially declaring and defining an error in theology or biblical interpretation. In addition, I wanted to show the Fathers, as the Council of Trent told us, were right in their consensus that the Earth was motionless in the center of the universe, and the Tradition following was also in consensus. Unlike Fr. Robinson, I was motivated to defend the tripartite authority of the magisterium, tradition and Scripture.

Fr. Robinson: There is another theological reason for his campaign: certain scientists have drawn philosophical conclusions from the heliocentric theory that are injurious to religion. For them, the Earth not being the centre of the universe shows that humans are insignificant and without purpose. If humans are off-centre in their own solar system and on the margins of their own Milky Way galaxy, then how could they possibly be of any significance? Heliocentrism rather must be the chance result of blind, random processes. Sungenis seems to agree with their inference. ‘If you see the Earth as just a humdrum planet among the stars circling in a vast universe,’ he says, ‘then we’re not significant, we’re just part of a crowd.’ ‘But if you believe everything revolves around Earth, it gives another picture—of purpose, a meaning of life.’ In my mind it would have been much simply to answer the scientists by saying that much more goes into an individual’s significant than his geographical or, if you wish, universal location. For instance, should we hold that people who live on the equator have a greater intrinsic worth than those who inhabit the antipodes, because of their centrality? (p. 267).

R. Sungenis: This explanation of Fr. Robinson’s shows either he doesn’t understand the proposition or is deliberately making a caricature of it so he can dismiss it. Any reasonable person would see our proposition has nothing to do with whether someone lives on the equator or the south pole; or whether someone would have no significance if he found himself on the outskirts of the universe, since he knows his ultimate worth is based on the fact that he is made in the image of God.

What Fr. Robinson misses, however, is the atheist’s point of view, which is the sole reason we presented the argument. The atheists love the idea of the Earth not being in the center of the universe, since it allows more of a possibility the universe began by a godless process of time and chance and the Earth became part of that coupling very late in the game and was thus thrown into the very deep recesses of space, far away from the universe’s origin. But if the Earth is, indeed, in the center, any atheist worth his salt would begin to wonder whether Someone put it there, since he knows being in the center has about a 1 in octillion chance of happening by time and chance. The atheist would know instinctively a divine power had to be behind putting the Earth in the center. From there we begin to preach the Gospel, since we have an individual whose mind has been opened.

Fr. Robinson: Instead of opting for this tact, Sungenis latches onto geocentrism as a means to restore purpose to the human race, offering \$1000 on his website to anyone able to refute his arguments. To this day, no one has yet been able to ... in *his* mind. (p. 267).

R. Sungenis: Again, I am not doing it to “restore purpose to the human race.” To use the center of the universe to give purpose is false worship, since only Christ can give us purpose. So much for Fr. Robinson’s caricatures.

Still, Fr. Robinson calls it “tact” to keep the idea from people the Earth is in the center of the universe. Considering what I said above (that Fr. Robinson totally missed) it is anything but “tact.” It is *tactless*. But this opens up another set of questions. Why is Fr. Robinson so frightened or leery of geocentrism? Why is he so reticent even to consider the Earth may be motionless in space and the center of it all? How could an Earth in the center of the universe damage any person’s quest for God? All it could do is help, for the very reasons I mentioned above. Something else is at work here, and perhaps we may discover it before we are done with Fr. Robinson.

Fr. Robinson: Sungenis rests his case on science being unable to prove anything with metaphysical certainty. Since science can never collect all of the data in the universe, there is still a remote possibility that there exists some hidden force or some unknown cause which, if we knew about it, would show that the Earth is the centre of the universe. Thus, Sungenis’s procedure is to cast doubt on legitimate scientific inferences, then claim that there is a gaping void of knowledge that needs to be filled, and finally hold up the Bible as filling the void by providing the certain answers that are beyond the reach of science. (p. 268).

R. Sungenis: If this is what Fr. Robinson thinks my methodology is, then he hasn’t understood a word of what I have stated in my books or movies; and I am appalled at the cavalier and disdainful way he chooses to characterize my work. Although it is true that science (and for that matter, any science, including metaphysics, philosophy, *etc.*) cannot really boast about anything it does or concludes for the simple fact that its field of vision is finite and its interpretive capabilities are fallible and often biased,

I have never used that fact to form an argument saying, “well, then, geocentrism could possibly be true.” I would be an idiot if I said so; and Fr. Robinson shows his ignorance for thinking I said so.

Again, Fr. Robinson’s shallow analysis shows me he has either not read my books or seen my movies, or the content of both simply went over his head. Not one sentence in my books or movies depends on “some hidden force or some unknown cause” that I am waiting to discover that “would show the Earth is the centre of the universe.” In my books and movies I list all the “forces and all the causes,” in 2200 pages, which lead us directly to the conclusion: the Earth is motionless in the center of the universe; and this conclusion is verified by what is taught in Scripture, the Church and the Tradition. Anyone who merely sees the Table of Contents knows this is the case. Experiment after scientific experiment, for the last 400 years, has been meticulously examined. Every one of those experiments either showed the Earth wasn’t moving in space, or our solar-Earth system was at the center of the universe. I quote from dozens of scientists, almost all of them secular, who conclude the same thing. Never once do I wish or depend on empirical evidence that is not there. That Fr. Robinson has the temerity to suggest otherwise means this man has an agenda and is not interested in showing the reality of the situation. His goal is to make me look like some maniac Bible-thumper who doesn’t have a scientific clue what he is talking about. This is how my enemies have decided to fight the battle. It will only come back to haunt them.

Fr. Robinson: What made Copernicus avant-garde was not so much his heliocentrism, but his construction of a mathematical model to support it. The greater simplicity of this model over the Ptolemaic model of a geocentric universe made it compelling to Copernicus. After all, he reasoned, would not a universe made by an all-wise God be more likely to have a simplicity and order accessible to the human mind rather than being chaotic and inscrutable? Indeed, this was his primary motive for holding that heliocentrism was true of reality, when it could not yet be verified by the senses. The simplicity of Copernicus’ model worked as a spark to gunpowder, attuning scientific minds to the power of mathematics to describe sensible phenomena. If the heliocentric model was so mathematically elegant, the next question to be asked was obvious: ‘is the universe as a whole, including our earth, fundamentally mathematical in its structure? (p. 315)

R. Sungeis: This claim to “simplicity” has always been the ploy of the Copernicans, but it is nothing but a myth. First, Copernicus did no original computations. As noted earlier, he simply copied Aristarchus’ heliocentric model and claimed it for his own in his 1510 work *Commentariolus*. By the time he published *De revolutionibus* in 1543, Copernicus discovered how complicated the orbs of the planets really are. It was not simply a matter of putting the sun in the center and having the planets go around in concentric circles. As noted earlier, by the time Copernicus was done putting in adjustments to make his model even come close to Ptolemy’s, he ended up with 48 epicycles to Ptolemy’s 40, hardly an achievement of “mathematical elegance.”

In reality, “what made Copernicus avant-garde was not so much his heliocentrism,” but his Greek-inspired sun worship and his immoral life (similar to the two other Copernicans, Galileo and Kepler). In 1509, Copernicus published a translation of the obscenity-filled letters of the Byzantine poet, Simoncatta. Further sexual exploits came to light when it was discovered Copernicus kept a mistress, but he refused to dismiss her when confronted by his diocesan bishop, Dantiscus. As one Copernican historian describes it:

Doctor Nicolaus had a mistress who regularly visited his house....Sometime between July 1531 and the summer of 1538, Copernicus started receiving a woman at his curia in Frombork....The woman was named Anna Schilling.... Copernicus and Anna’s father were involved together for seven years, from 1529 to 1536....Most problematic for Copernicus was the fact that she was still technically married....Anna was reported to be pretty, well educated, and deeply interested in astronomy....Despite Dantiscus’s order to clean his household, Copernicus did not comply....Though everyone knew the actual situation between Copernicus and Anna, it appears that the astronomer told people that she was simply his housekeeper....Six weeks later the situation seemed to have been addressed when Copernicus wrote to Dantiscus....However, Copernicus had lied. He had not ended the relationship, and word of the continued presence of Anna Schilling in Copernicus’s house got back to Dantiscus later that

winter...In his old age, almost at the end of his allotted time, he is still said to let his mistress in frequently in secret assignments.³⁹⁶

Having heard of his fame, a fellow heliocentrist, Georg Joachim Rheticus,³⁹⁷ visited with Copernicus in 1539. After befriending Copernicus and reading his works, Rheticus worked very hard in convincing him to publish his *De revolutionibus*. In the meantime, Copernicus had suffered a stroke in December 1542, but his book was finally published in March 1543 by Petreius, and Copernicus had died shortly thereafter. After all the work that Rheticus had done to facilitate its publication, however, he received quite a shock when he read the opening credits of *De revolutionibus*. Koestler refers to it as a “double-cross.” Repcheck describes it as follows:

...when Rheticus opened the finished book...and finally read Copernicus’s opening words [and] his acknowledgments, Rheticus must have been stunned to read that although Copernicus thanked several people, he somehow forgot to thank him. This had to have been a devastating blow to the young mathematician. Historians of science have been at pains to explain what happened...Giese wrote that “your teacher failed to mention you in his Preface to the treatise”...What happened?...It must have been something specific, because the oversight is glaring.³⁹⁸

Rheticus never really recovered from this slight. For many years afterward he refused to promote Copernicus’ book. We might surmise Copernicus was not in this cosmological pursuit solely as an altruistic venture for the truth, but for the fame he so jealously desired to guard from any would-be usurper. Of course, Rheticus had his own problems, and perhaps

³⁹⁶ Jack Repcheck, *Copernicus’s Secret*, pp. 92-99, 145.

³⁹⁷ Rheticus’ original name was Georg Joachim Iserin. His father, Georg Iserin, had been convicted of various crimes (either sorcery or theft, or both) and was executed. Families of the executed were required to change their last name. He chose “Rheticus” from the region of Rhaetia from where his mother originated.

³⁹⁸ *Copernicus’s Secret*, pp. 166-167. Repcheck goes on to speculate that “after Copernicus observed the acclaim bestowed on the *Narratio prima*, and after the young and enthusiastic Rheticus left Frombrok with his masterpiece, Copernicus might have sensed that he would not be around to enjoy the moment of victory, and Rheticus surely would. Perhaps this bothered him so much that he deliberately slighted Rheticus” (*ibid*).

Copernicus sensed something was amiss with the indulgent befriending he received from the young lad a few years earlier. As it turns out, Rheticus was a homosexual who, on several occasions, found himself being run out of town for his peccadilloes. On one occasion he was convicted of sodomy against a young boy. As Repcheck describes it:

In April 1551, Hans Meusel, a merchant, brought a lawsuit against Rheticus for a shocking crime – the injunction claimed that the professor had “lured my son...plied him with strong drink, until he was inebriated; and finally did with violence overcome him and practice upon him the shameful and cruel vice of sodomy...Joachim Rheticus fled Leipzig immediately, leaving nearly all of his personal belongings behind...Over the next twelve months official letters were sent from the court to Rheticus and ignored. But on April 11, 1552, Rheticus, age thirty-eight, was found guilty of raping young Meusel. He was exiled from Leipzig for 101 years.³⁹⁹

This brings us to another disturbing aspect of Copernicus’ approach to cosmology. Since Copernicus was a Canon of the Catholic Church and one who rubbed shoulders with high-placed Cardinals and enjoyed audiences with the reigning pope, one might expect him to have been a high churchman in his own right, with regular recourse to the Church Fathers, especially since he knew a good number of them wrote definitive works on cosmology and cosmogony.⁴⁰⁰ Moreover, one would also expect him to

³⁹⁹ *Ibid.*, p. 178. Koestler adds: “Rheticus was a sodomite” (*The Sleepwalkers*, p. 179, see also pp. 170f, 184f). Gingerich confirms with: “There were dark rumors of a drunken homosexual episode involving a student half his age. The irate father of the young man involved brought a lawsuit. In disgrace, Rheticus fled from Leipzig” (*The Book that Nobody Read*, p. 182).

⁴⁰⁰ Chief among them were Basil the Great, bishop of Caesarea. Advancing a dogmatic assertion of geocentrism, he writes: “There are inquirers into nature who with a great display of words give reasons for the immobility of the Earth...Do not then be surprised that the world never falls: it occupies the center of the universe, its natural place. By all necessity it is obliged to remain in its place, unless a movement contrary to nature should displace it. If there is anything in this system which might appear probable to you, keep your admiration for the source of such perfect order, on the wisdom of God” (*Hexameron*, Homily 1, 10); and Chrysostom: “For they who are mad imagine that nothing stands still, yet this arises not from the objects that are seen, but from the eyes that see. Because they are unsteady and giddy, they think that the Earth turns round with them, which yet

have sought out their consensus on important issues, since this was the Church's most formidable weapon against heresies, even as Robert Bellarmine admonished Foscarini and Galileo.⁴⁰¹ But one searches in vain for any patristic references in *De revolutionibus*, or, for that matter, in any of Copernicus' works. After prefacing his remarks to Pope Leo X with a castigation of those who "...although wholly ignorant of mathematics... shamelessly distorting the sense of some passage in Holy Writ to suit their own purpose," the only time Copernicus crosses the threshold into the patristic witness for Leo's sake is a derisive remark about Lactantius:

For it is not unknown that Lactantius, otherwise a distinguished writer but hardly a mathematician, speaks in an utterly childish fashion concerning the shape of the Earth, when he laughs at those who have affirmed that the Earth has the form of a globe.⁴⁰²

Consequently, as a lot, the Fathers are made to appear as ignorant partisans against the goals of science and not worthy of comment on so important a subject. The reality is that Lactantius was the only Father of the Church (and he was not a highly esteemed patristic witness) who suggested a non-spherical Earth, but even then it was because he was opposed to the antipode concept.⁴⁰³ Every other Father who wrote at length on cosmological issues stated his belief, based on Scripture and science, that

turns not, but stands firm. The derangement is of their own state, not from any affection of the element." (*Homilies on Titus* 2:1).

⁴⁰¹ Bellarmine states: "Second, I say that, as you know, the Council [of Trent] prohibits interpreting Scripture against the common consensus of the Holy Fathers; and if Your [Reverence] wants to read not only the Holy Fathers, but also the modern commentaries on Genesis, the Psalms, Ecclesiastes, and Joshua, you will find all agreeing in the literal interpretation that the sun is in heaven and turns around the earth with great speed, and that the earth is very far from heaven and sits motionless at the center of the world. Consider now, with your sense of prudence, whether the Church can tolerate giving Scripture a meaning contrary to the Holy Fathers and to all the Greek and Latin commentators" (Bellarmine to Paolo Antonio Foscarini, April 12, 1615).

⁴⁰² *De revolutionibus*, Dedication to Pope Paul III, *Revolutions of Heavenly Spheres*, Charles G. Wallis, p. 7.

⁴⁰³ Lactantius, *Divine Institutes*, Bk 3, Ch 23: "they thought that the world is round like a ball...But if this were so, the Earth also itself must be like a globe...And if this were so, that last consequence also followed, that there would be no part of the Earth uninhabited by men and the other animals. Thus the rotundity of the Earth leads, in addition, to the invention of those suspended antipodes."

the Earth was a sphere,⁴⁰⁴ and only a few doubted it, but never said the Earth was flat.⁴⁰⁵ But one would never know these essential facts from the biased Copernicus. Instead, Copernicus rests his lot with the Greek philosophers and astronomers, the very individuals upon whom the Church Fathers focused their critiques in the areas of cosmology and cosmogony. *De revolutionibus* is saturated with nothing but praise for the Greek cosmologists, the ones who advocated a moving Earth:

I found in Cicero that Hicetas [of Syracuse, fifth century BC] had realized that the Earth moved. Afterwards I found in Plutarch that certain others had held the like opinion. I think fit here to add Plutarch's own words, to make them accessible to all: "The rest hold the Earth to be stationary, but Philolaus the Pythagorean says that she moves around the [central] fire on an oblique circle like the Sun and Moon. Heraclides of Pontus and Ecphantus the Pythagorean also make the Earth to move, not indeed through space but by rotating round her own center as a wheel on an axle from West to East."⁴⁰⁶

⁴⁰⁴ Athanasius: "And wells, again, and rivers will never exist without the Earth; but the Earth is not supported upon itself, but is set upon the realm of the waters, while this again is kept in its place, being bound fast at the center of the universe. And the sea, and the great ocean that flows outside round the whole Earth, is moved and borne by winds wherever the force of the winds dashes it." (*Against the Heathen*, First Book, Part 1, 27); Gregory of Nyssa: "As, when the sun shines above the Earth, the shadow is spread over its lower part, because its spherical shape makes it impossible for it to be clasped all round at one and the same time by the rays, and necessarily, on whatever side the sun's rays may fall on some particular point of the globe..." (*On the Soul and the Resurrection*); **Augustine**: "Think we, had he ascended to the peak of some very high and pointed mountain, and looked out thence and seen the compass of the Earth, and the circles of the round world, and therefore said, 'I have seen the end of all perfection'?" (*Homilies on First John*, x, 5); Jerome: "...the sphere which I have called motionless and all that it contains will be dissolved into nothing, and the sphere in which the antizone itself is contained shall be called 'good ground,' and that other sphere which in its revolution surrounds the Earth and goes by the name of heaven shall be reserved for the abode of the saints" (*Letters*, 124, *To Avitus*). See my book, *Flat Earth/Flat Wrong* at www.flatearthflatwrong.com.

⁴⁰⁵ See my book, *Flat Earth/Flat Wrong*, 2018, 750 pages.

⁴⁰⁶ *De revolutionibus*, Dedication to Pope Paul III. Heraclides (d. 310 BC) a Greek astronomer who was one of the first to propose that the revolution of the stars around the Earth could also be understood as the Earth rotating on its axis in the midst of stationary stars.

In the text of *De revolutionibus* he continues:

It is the vault of Heaven that contains all things, and why should not motion be attributed rather to the contained than to the container, to the located than the locator? The latter view was certainly that of Heraclides and Ephantus the Pythagorean and Hicetas of Syracuse (according to Cicero). All of them made the Earth rotate in the midst of the Universe...That the Earth, besides rotating, wanders with several motions and is indeed a Planet, is a view attributed to Philolaus the Pythagorean, no mean mathematician, and one whom Plato is said to have sought out in Italy.⁴⁰⁷

Despite that the Greeks have quite a confusing assortment of views on the cosmos, Copernicus is still enamored with them, and especially with their mathematics, but he holds dear only the select few who believed in heliocentrism. As noted earlier, the appeal to “mathematical elegance” or “mathematical harmonies” is a common thread running through most of the new cosmology, from Copernicus to Kepler through Einstein and Quantum Mechanics. The appeal, though appearing logical and formidable, is baseless. Mathematics proves very little, except that the right side of the equation can often be made equal to the left side.

⁴⁰⁷ *De revolutionibus*, 5. *Whether Circular Motion Belongs to the Earth; and Concerning its Position.*

THE AGE OF THE EARTH

Fr. Robinson: In his attractive book *In the Beginning*, Dr. Walt Brown pursues the same strategy on behalf of a young Earth that Sungenis employs for a central Earth. The literature commonly refers to the strategy as the ‘God of the gaps’ argument explained above....To advance his case, Brown must attack evidence for an old universe on the one hand, and that for an old Earth on the other. Two characteristics of his strategy are that: he seeks to poke holes in scientific theories that make sense of the totality of empirical data without proposing his own scientific theory to account for that data. (pp. 268-269).

R. Sungenis: First, we’ve already seen Fr. Robinson has his own version of the “God of the gaps” theory, since, unlike the evolutionists, he doesn’t believe non-biological matter has evolved over billions of years can then evolve into biological matter, and thus needs God to ‘fill in the gaps’ between the two.

Secondly, it appears Fr. Robinson allows himself to establish the rules of the game (similar to the straw men he depended upon previously). Walt Brown doesn’t need an alternate theory in order to see the errors in a present theory. That’s just common sense. Fr. Robinson is merely trying to ward off criticism to the theories he likes and put the blame on his opponent.

Fr. Robinson: ...he is forced to reject the idea that the universe has acted according to a consistent set of laws and pattern of behavior since its inception, an idea that naturally follows from belief in an all-wise Creator. (p. 269).

R. Sungenis: Hardly. Walt Brown accepts whatever laws have been proven to be at play at any given time, including any laws that come into play when conditions change. If conditions change and thus we see the application of the laws of nature that, although existing in the past, suddenly become evident due to the changing conditions of the universe, God is as much behind the application of these laws as he would be if the laws did not need to be applied. Fr. Robinson is merely seeking a clever way to introduce what evolutionists and long-agers depend upon for their theories, namely, the concept of *uniformitarianism*, that is, that everything

over billions of years has proceeded normally and without incident. In this way, they attempt to exclude any incidence of cataclysmic events that would radically alter the conditions of either the universe or the Earth and thus would require, so they claim, the application of “other laws of nature” not seen previously but existed in theory, as it were. In other words, Fr. Robinson is, once again, creating his own straw man so that he can use it to promote his own system.

Fr. Robinson: The implication, therefore, is that the *solar system does not have a history of formation; rather, it was created as is, with all of its variety, by a direct act of God's omnipotence.* Thus, scientists should throw up their hands when observing all of that variety in their telescopes, say that it is impossible to explain, stop theorizing about the developments of the past, and abandon their research. Brown, in other words, is seeking to induce a certain intellectual despair in the ability of the mind to go from effect to cause, from observation to explanation, so that all can be attributed to God and nothing to creatures. This is the very hallmark of theologism. (p. 269).

R. Sungenis: Fr. Robinson likes to put labels on his opponents. I guess he believes it is an effective form of rhetoric that makes his opponent look like he fits into a pre-established category of error everyone already knows and will nod their head accordingly. The fact is, every single secular evolutionist could call Fr. Robinson's concept of cosmogony a “theologism,” since Fr. Robinson, at some point, is going to need God to step in and create what the “history of formation...with all its variety” cannot produce or explain “so that all can be attributed to God and nothing to creatures.”

Between Walt Brown and Paul Robinson, it's merely a matter of degree as to when and where “a direct act of God's omnipotence” is needed in order to continue the process. Walt Brown just thinks it's silly not to use the same “direct act of God's omnipotence” for the biological part of the universe and not also the non-biological part, since some of the same complexities and irreducible aspects of nature confronts non-biological development as it does biological development.

For example, since Fr. Robinson believes in the Big Bang theory, he, if he is going to follow the very modern cosmogony that invented the Big Bang,

depends on something designated as a “singularity” (whatever that is) existing before the Big Bang wherein somehow this singularity decides to explode. Explode on what basis? What natural law can Fr. Robinson cite that demands this “singularity” explode? I can save him a lot of time. There isn’t any. It explodes because secular man wants it to explode. There is no natural cause we know of.

So, it would seem Fr. Robinson is required to invoke “a direct act of God’s omnipotence” in order to make it explode. Either way he is trapped. On the one hand, if he claims, as he did above, “the universe has acted according to a consistent set of laws and pattern of behavior since its inception,” then he is required to state the specific law making a “singularity” explode (and he is even required to explain what a “singularity” is).

On the other hand, if he can’t cite a specific law, then he must invoke God to fill the gap. If he does, then he is no better than Walt Brown invoking God to create the solar system, especially when Walt Brown sees the same complexity in starting from a Big Bang that he sees in the formation of the solar system.

Even more so, Fr. Robinson is required to tell us what “consistent laws and pattern of behavior” requires there to be a super-explosion, otherwise known as “inflation.” He can’t. Secular man invented “inflation”—and did so against every known law of nature he knew—because he found out his Big Bang wouldn’t have a rat’s ass chance of working unless he added it in, willy-nilly.

Secular man then found not even the “inflation” would have a rat’s ass of doing all that was required unless a good measure of “dark energy” and “dark matter” (the source and evidence unknown to this very day) were added, willy-nilly, to the aftermath to make the explosion go a lot faster than it was going—at least four times the speed of light, and all without the slightest apology to Einstein. They transgressed Einstein’s speed limit once again, the same as they did when they invented “inflation” to circumvent his speed limit). And, of course, all this self-organization supposedly occurs over billions of years when, in fact, one of the most “consistent laws and behaviors” of nature we have come to know and accept is the Second Law of Thermodynamics, which says that both

baryonic matter and energy move to increasing disorder, not order. But apparently Fr. Robinson has thrown out that “consistent” law.

In other words, Fr. Robinson’s pipe dream of “theorizing about the developments of the past” wouldn’t be so funny if not for the cockamamie “theorizing” secular scientists have induced to produce this phantasmagoria that simply defies imagination as well as any “consistent laws of nature.” They simply make it up as they go along and really pay little attention to preserving any laws of nature, except those they need. Consequently, for every finger Fr. Robinson points at Walt Brown, he has three pointing back at himself.

Fr. Robinson: ...the New Horizons probe...reached Pluto on 14 July 2015...it provided the first photos by which the human race could see the actual topographical features of Pluto....But Brown and the creationist would have us believe that Pluto was created by God ‘as is’, such that there is no history and hence no trail of causes to be investigated. It is this idea that eliminates the need to do science. (pp. 269-270).

R. Sungenis: No, he doesn’t, any more than Brown would claim the Moon was created with craters on the Fourth day of Genesis 1. Fr. Robinson has a bad habit of caricaturizing his opponent to make him look like an extremist so he can accuse him of being out of touch with reality. Since meteor and meteorite bombardment of Earth occurs presently, we would assume the Moon, because it doesn’t have an atmosphere to burn up the entering meteors, can do nothing to stop them from crashing into its landscape. Over thousands of years, we would expect the Moon to look more like Swiss Cheese than sliced Provolone. What Walt Brown means is the extreme diversity we see among the planets is much easier to accept as a result of divine fiat than it would be by natural processes. He is not, by any stretch of the imagination, saying there would be no natural events occurring on these planets, either presently or in the past. Likewise, within the thousands of years the Genesis genealogies allow for the existence of Pluto, its terrain would naturally be affected by some of the same inertial forces, gravity, volcanic and other forces that affect the Earth.

While we’re here, let’s remark on how Fr. Robinson conveniently dismisses naturally occurring evidence in the cosmos that puts Earth in the

center of the universe. For example, Fr. Robinson looks at the Cosmic Microwave Radiation (CMB) and even though many secular scientists have seen (but don't like) that it forms an axis going right alongside our 23.5-degree ecliptic plane, Fr. Robinson pretends it isn't there. In fact, there is one "consistent law and behavior" Fr. Robinson follows with the utmost devotion throughout his book, namely: any scientific evidence that could possibly refer to a young earth and a central Earth, he will "consistently" avoid it. One wouldn't even know there was an ongoing debate over the CMB evidence if left with only Fr. Robinson's book to read.

Fr. Robinson: The second characteristic of Brown's attack on scientific arguments for an old Earth and an old universe is his rejection of the consistency of natural laws. Scientists today look at the laws of the universe as we are able to observe them, and apply those same laws to the past. If natural laws have constantly changed in the past, science cannot be done, for current natural processes would then teach us nothing about the past. Consequently, scientists assume nature to be consistent, an assumption that is called uniformitarianism, and that was systematized by Charles Lyell, a contemporary of Darwin (pp. 270-271).

R. Sungenis: If this is Fr. Robinson's definition of uniformitarianism, then Walt Brown, and even myself, totally agree with him. Scientific laws are scientific laws, and they do not change over time (and if there is an exception, we don't know about it). So much for Fr. Robinson's straw man.

The problem for Fr. Robinson is that uniformitarianism claims there were no cataclysmic events and all development proceeded normally and undisturbed over billions of years. The specific cataclysmic event Fr. Robinson wants to avoid (like the plague) is the global flood of Genesis 6-9. Obviously, the landscape is going to have a hard time making fossils if the climate isn't "uniform," since if a lot of water washes away either the organic specimen or the rock it wants to be embedded in, then you certainly cannot have millions of years of open organic specimens forming in various layers of the Earth; and you certainly can't make a calendar of history based on that kind of arbitrary disruption. In fact, the whole

evolutionary paradigm collapses if the “assumption” of uniformitarianism is false. Suffice it to say, it is a naked assumption and there is no evidence for it. In any case, as we will see later, Fr. Robinson will try his best to make the global flood of Genesis 6-9 appear like a fairy tale so he can impose his long-ages in its place.

Fr. Robinson: The greatest opponents of uniformitarianism are the creationists....In their mind, God periodically intervenes in His own Creation, and not just to perform miracles, but to change natural laws. This idea they call ‘Biblical catastrophism’, defined as ‘the doctrine that, at least on the occasions mentioned in Scripture, God has directly intervened in the normal physical processes of the universe, causing significant change for a time.’ (fn from J. Whitcomb and H. Morris, *The Genesis Flood*, p. xxvii). (p. 272).

R. Sungenis: Here we have a total misrepresentation from Fr. Robinson of his opponent. Notice in the definition of “catastrophism,” Whitcomb and Morris indicate there is no reference to the “rejection of the consistency of natural laws,” the very accusation of which Fr. Robinson accused these gentlemen just one paragraph above. Whitcomb and Morris are very careful to say, “God has directly intervened in the normal process of the universe,” not that God changed any of the natural laws of the universe. There is a big difference between the two and apparently Fr. Robinson can’t see it. If, by analogy, I spin a top, but after it spins for a while I intervene by putting my hand on it to cease its motion, have I rejected any of the laws of nature? Certainly not. In fact, I am using the laws of nature, since if a sufficient force is applied to a spinning object, the object will stop its motion and transfer its kinetic energy to heat energy, thus warming my hand a little. If anything, I am *depending* on the laws of nature, not rejecting or reinventing them. In other words, one intervenes in order to make the consistent laws of nature do his bidding, as God did when he allowed a global flood on the Earth.

Let us conclude by saying this: the greatest opponents of the Bible and its recorded history are people, like Fr. Robinson, who insist that after the sin of man in the Garden, all things continue without incident and without change; in addition to the fact they misunderstand and misrepresent those

who recognize such incidents as incorporating the natural laws and processes God has created, yet make it appear as if they reject them.

Fr. Robinson: Whenever science draws conclusions against their interpretation of the Bible, conclusions that assume a consistency in natural laws, the creationists answer by saying that nature did not always act according to those laws. (p. 272).

R. Sungenis: Again, this is a totally false accusation, and it reveals that Fr. Robinson doesn't even understand his opponent's position, much less is he capable of discrediting it. Nature always acts according to the laws that were established, and she can never deviate from those laws, nor would she want to. God, however, since He is above and in control of nature, can intervene any time He so chooses and thus perform acts dependent on the very laws of nature He created, and that decision is usually when man has sinned grievously against him.

Fr. Robinson: For instance, Brown opines that radioactive decay might have been much quicker in the past than it is today. If such was the case, then the radioactive dating of certain Earth rocks and asteroids to 4.55 billion years is inaccurate. Thus, we must look to something more reliable for the age of the Earth, that is, we must look to the Bible according to its literal interpreters. (p. 272).

R. Sungenis: Laying aside our coming study of radiometry and sedimentology (which show that modern dating methods of rocks and geological layers is a best an unproven science based on false assumptions), notice how reticent Fr. Robinson is to consider the Bible as an authority on this issue. This is part and parcel with Catholic and Protestant liberals. After they both make a caricature of the firmament in Genesis 1:6-9 as a flat Earth with a dome over it, they give themselves license to reject any other part of the Bible's history as fallacious, man-made fairy tales. Thus the meticulous genealogies of Genesis 5 and 11; 1 Chronicles 1-10; Matthew 1, Luke 3, have not the slightest effect on these biblical miscreants. To them, such chronologies are just window dressing on the outside and erroneous on the inside.

Fr. Robinson: What about the light of stars and galaxies? Measurements of the light wavelength of certain stars and galaxies

indicate that it has taken their light million and billions of years to arrive at Earth. (p. 272).

R. Sungenis: What Fr. Robinson appears to be referring to here is the phenomenon of redshift. We all agree the wavelength of light from galaxies comes to us from all over the universe with a shift to the red side of the spectrum. We covered this earlier in the work of Edwin Hubble. But what Fr. Robinson does here is little more than sleight-of-hand.

When Hubble saw the redshift of the galaxies, he immediately understood this put the Earth right smack in the center of the universe, since if it weren't in the center then he should have seen blueshifts along with the redshifts, but no blueshifts were to be had. But as we read from Hubble's book, he didn't like the Earth being in the center. So he devised a universe with no center and invented a balloon universe wherein every galaxy was placed on the surface of the balloon. To account for the redshift, Hubble claimed the balloon was expanding, carrying all the galaxies away from each other, and as the galaxies go farther away they stretch the light between them and it recedes to the red end of the spectrum. Hubble and modern science desperately needed this kind of universe if they were going to get rid of the possibility of an Earth in the center of the universe.

In other words, Fr. Robinson must accept, on blind faith, that Hubble's invention of the universe with no center and expanding over billions of years is correct in order to refute Walt Brown, even when he knows Hubble merely pulled this expanding universe literally out of thin air in order to escape *what he really saw in his telescope*, that is, the Earth was in the center of the redshift dispersion. Fr. Robinson accepts this totally *ad hoc* universe of Hubble's as if it were Gospel. He doesn't have the slightest doubt it is true, and he offers not a smidgen of criticism against it, even though he knows of its equivocal origins (which are all clearly stated in Chapter 3 of *Galileo Was Wrong*, a book Fr. Robinson claims to have read). If he really studied the issue, Fr. Robinson should at least have as much doubt as Hubble did. In regards to the cause of redshift Hubble states:

Hence, if the distances of the nebulae were known quite accurately we could measure their apparent faintness and tell at once whether or not

they are receding at the rates indicated by redshifts. Unfortunately, the problem is not so simple. The only general criterion of great distances is the very apparent faintness of the nebulae which we wish to test. Therefore, the proposed test involves a vicious circle, and the dimming factor merely leads to an error in distance. However, a possible escape from the vicious circle is found in the following procedure. Since the intrinsic luminosities of nebulae are known, their apparent faintness furnishes two scales of distance, depending upon whether we assume the nebulae to be stationary or receding. If, then, we analyze our data, if we map the observable region, using first one scale and then the other, we may find that the wrong scale leads to contradictions or at least to grave difficulties. *Such attempts have been made and one scale does lead to trouble. It is the scale which includes the dimming factors of recession, which assumes that the universe is expanding.*⁴⁰⁸

So Hubble is quite aware that between an Earth-centered universe and the expansion theory, the latter is the weaker of the two and the one least likely:

Thus the use of dimming corrections leads to a particular kind of universe, but one which most students are likely to reject as highly improbable. Furthermore, the strange features of this universe are merely the dimming corrections expressed in different terms. Omit the dimming factors, and the oddities vanish. We are left with the simple, even familiar concept of a sensibly infinite universe. All the difficulties are transferred to the interpretation of redshifts which cannot then be the familiar velocity shifts....Meanwhile, on the basis of the evidence now available, apparent discrepancies between theory and observation must be recognized. *A choice is presented, as once before in the days of Copernicus, between a strangely small, finite universe and a sensibly infinite universe plus a new principle of nature.*⁴⁰⁹

⁴⁰⁸ “The Interpretation of the Redshifts,” pp. 108-109, in “The Problem of the Expanding Universe,” *American Scientist*, Vol. 30, No. 2, April 1942, emphasis added.

⁴⁰⁹ Edwin Hubble, “The Problem of the Expanding Universe,” *American Scientist*, Vol. 30, No. 2, April 1942, pp. 99f; *The Observational Approach to Cosmology*, p. 21, emphasis added. Hubble also states: “for a stationary universe, the law of redshifts is sensibly linear....The results may be stated simply. If the nebulae are stationary, the law of redshifts is sensibly linear; redshifts are a constant multiple of distances. In other words, each unit of light path contributes the same amount

Could it be any clearer what Hubble was up against and what his motivations were? Either he finds a way to make his expansion theory more palatable or he will be stuck with an Earth-centered universe. But in his 1937 book, *The Observational Approach to Cosmology*, he is even more candid about his doubts that expansion is the proper interpretation of redshift, as well as his doubts about the Relativity theory behind it. He was honest enough to admit there was another viable interpretation, and his book shows he was deeply troubled, for he had no way to disprove it. It was the interpretation which holds redshift, among other factors, is due to light's energy loss as it interacts with gravitational or inertial mediums or collides with debris in space. As Hubble puts the possibility:

...light loses energy in proportion to the distance it travels through space. The law, in this form, sounds quite plausible. Internebular space, we believe, cannot be entirely empty. There must be a gravitational field through which the light-quanta travel for many millions of years before they reach the observer, and there may be some interaction between the quanta and the surrounding medium....Light may lose energy during its journey through space, but if so, we do not yet know how the loss can be explained.⁴¹⁰

The longer light must travel, the more it will interact and the more energy it will lose, and thus the longer will be its shift to the red end of the spectrum. Estimates say that light would lose about 5-7% of its energy every 109 light years of distance. Hubble is so bothered by this possibility he feels compelled to mention it about a dozen times throughout the book.⁴¹¹ Accordingly, we see Hubble struggling to make the data conform

of redshift" (p. 111). Likewise, in a paper Hubble wrote with Richard Tolman in 1935, he concludes that the observational information is "not yet sufficient to permit a decision between recessional or other causes for the redshift" (Edwin Hubble and Richard Tolman, "Two Methods of Investigating the Nature of the Nebular Redshift," *Astrophysical Journal*, 82:302-37, 1935). Of the "two methods," of course, one is that redshift does not represent velocity.

⁴¹⁰ *The Observational Approach to Cosmology*, p. 30.

⁴¹¹ *The Observational Approach to Cosmology*, Oxford, 1937, Preface: "the phenomena of red-shifts whose significance is still uncertain"; p. 21: "the law of redshifts...but the uncertainties were considerable"; p. 26: "...red-shifts as velocity-shifts...seems to imply a strange and dubious universe, very young and very small...seems to imply that red-shifts are not primarily velocity-shifts...the

to the theories of the day. On the one hand, he knows if he interprets redshift as a velocity-indicator, then he winds up with a universe too small and too young to accommodate the theory of biological evolution. As he puts it:

A universe that has been expanding in this manner would be so extraordinarily young, the time-interval since the expansion began would be so brief, that suspicions are at once aroused concerning either the interpretation of redshifts as velocity-shifts or the cosmological theory in its present form.⁴¹²

But if Hubble interprets redshift as a loss of light's energy, even though he has a more "plausible" model for redshift, it is one that produces an "indefinitely large" universe and, most of all, does not allow for the postulates of Special or General Relativity. As he puts it:

On the other hand, if the recession factor is dropped, if red-shifts are not primarily velocity-shifts, the picture is simple and plausible. There is no evidence of expansion and no restriction of the time-scale, no trace of spatial curvature, and no limitation of spatial dimensions.⁴¹³

observer is inclined to keep an open mind..."; p. 31: "Red-shifts are produced either in the nebulae, where the light originates, or in the intervening space through which the light travels....At present, however, the direct investigation ends in a vicious circle, and the persistent observer is forced to consider a possible indirect attack on the problem"; p. 39: "There seems to be no *a priori* necessity for a linear law of expansion, a strict proportionality between red-shifts and distance"; p. 43: "Thus, the familiar interpretation of red-shifts as velocity-shifts leads to strange and dubious conclusions; while the unknown, alternative interpretation leads to conclusions that seem plausible and even familiar"; p. 44: "The fundamental question is the interpretation of red-shifts"; p. 55: "At this point the cosmologist seizes upon the observed red-shifts, interprets them as velocity-shifts..." Radio astronomer, Grote Reber (d. 2002), who built the first radio telescope in 1937, points out many of these very pages in Hubble's book to indicate that Hubble had "grave doubts about redshifts being caused by relative motion." As noted previously, Reber is the true discoverer of the Cosmic Background Radiation, not Penzias and Wilson ("Cosmic Static at 144 meters wavelength," *Journal of the Franklin Institute*, vol. 285 (Jan. 1968), pp. 1-12). A biographical note reveals that Reber's mother was Edwin Hubble's seventh-grade teacher.

⁴¹² *Ibid.*, p. 46.

⁴¹³ *Ibid.*, p. 63.

So not only was Hubble opposed to the Friedmann-Lemaître expansion, in the same 1936 paper he points to another target – General Relativity:

...if redshifts are not primarily due to velocity shifts, the observable region loses much of its significance. The velocity-distance relation is linear; the distribution of nebulae [galaxies] is uniform; there is no evidence of expansion, no trace of curvature, no restriction of the time scale.⁴¹⁴

The reader should stop and digest what an amazing statement this is. Without any equivocation, Hubble declares, if he is correct the redshift/velocity relationship is mistaken, then Einstein’s theory of Relativity is totally erroneous. Space “curvature” and “restriction of the time scale” were Relativity’s basic tenets. Without them, there is no General Relativity. Without the relation between redshift and velocity, Einstein has become worse than the medievals he accused of practicing superstition.

What a dilemma for science! Hubble’s only alternative had already been discounted – an Earth-centered cosmos that was closed and finite. So what does a good scientist do in such a situation? He preserves the sacrosanct theory of General Relativity as best he can by making convenient *ad hoc* assumptions and creating arbitrary variables that will give it some semblance of respectability. The first assumption needed is the universe is “homogeneous,” that is:

...there must be no favored location in the universe [*i.e.*, no central Earth], no center, no boundary; all must see the universe alike. And, in

⁴¹⁴ *Astrophysical Journal* 84, 517 (1936), p. 553; and *The Observational Approach to Cosmology*, p. 63. Hubble continues: “The unexpected and truly remarkable features are introduced by the *additional assumption that redshifts measure recession*. The velocity-distance relation deviates from linearity by the exact amount of the postulated recession. The distribution departs from uniformity by the exact amount of the recession. The departures are compensated by curvature, which is the exact equivalent of the recession. Unless the coincidences are evidence of an underlying necessary relation between the various factors, *they detract materially from the plausibility of the interpretation*, the small scale of the expanding model, both in space and time is a novelty, and as such will require rather decisive evidence for its acceptance” (emphasis added).

order to ensure this situation, the cosmologist postulates spatial isotropy and spatial homogeneity....⁴¹⁵

Once “homogeneity” is assumed (not proven), one needs to get to an “expanding universe,” for this will help support the trend in modern cosmology toward the Big Bang theory. But if one introduces expansion into a homogeneous universe, this will cause an imbalance in the “law of distribution” wherein, as Hubble warns his reader:

...the density of the nebular distribution increases outwards, symmetrically in all directions, leaving the observer in a unique position. Such a favoured position, of course, is intolerable; moreover, it represents a discrepancy with the theory, because the theory postulates homogeneity. Therefore, in order to restore homogeneity, and to escape the horror of a unique position, the departures from uniformity, which are introduced by the recession factors, must be compensated by the second term representing effects of spatial curvature. There seems to be no other escape.⁴¹⁶

In other words, rather than the nebulae thinning out as the distance from their origin increases (as one would expect in an expanding universe), conversely, Hubble’s telescope tells him the distant nebulae have the same concentration as the nearer nebulae. So now Hubble needs to invent another variable that will compensate for this lack of thinning out. Hubble makes no excuses for the *ad hoc* nature of this seemingly desperate attempt to salvage modern theory. He writes:

To the observer the procedure seems artificial...in testing the relativistic theory, he introduces a new postulate, namely recession of the nebulae, and it leads to discrepancies. Therefore, he adds still

⁴¹⁵ *Ibid.*, p. 63.

⁴¹⁶ *Ibid.*, pp. 58-59. Hubble adds: “Observations demonstrate that: $\log_{10} N = 0.6m_c + \text{constant}$. Relativistic cosmology requires that $\log_{10} N = 0.6(m_c - d\lambda/\lambda + C_v) + \text{constant}$, therefore $C_v = d\lambda/\lambda$. The curvature of space is demonstrated and measured by the postulated recession of the nebulae.” N = number of nebulae per square degree; m_c = the limiting faintness expressed as a magnitude; $d\lambda/\lambda$ = the recession factor; C_v is the effect of spatial curvature.

another postulate, namely, spatial curvature, in order to compensate the discrepancies introduced by the first.⁴¹⁷

In other words, geodesic geometry is used to curve the space of the homogeneous universe so that it can bend to conform with the mathematics of General Relativity. As Hubble puts it:

Theoretical investigators, guided by the assumption of homogeneity, adopt Riemannian geometry which operates in curved space. The curvature cannot be visualized....It is sufficient to say that the nature of the curvature is indicated, and the amount is measured, by the radius of curvature (which projects, as it were, to higher dimensions). The radius in our universe might be positive, negative or zero, and might be large or small. A positive curvature implies closed space, a universe with a definite, finite volume but with no boundary. A negative curvature implies open space, an infinite universe. The limiting case of zero curvature is 'flat' Euclidean space with an infinite radius...and, in all but flat space, the amount of curvature has a wide range of possible values.⁴¹⁸

But, even after admitting his “theoretical investigators” produce such *ad hoc* solutions, nevertheless, in order to remain with the consensus, Hubble adds his own *ad hoc* touches to round out the picture:

Actually, no curvature can be found which exactly compensates for the apparent departures from uniformity in each of the surveys. Nevertheless, if we admit the presence of rather considerable systematic errors in the observations, it is possible to select a curvature which will more or less restore homogeneity. Hidden errors of the necessary dimensions are by no means impossible in the very delicate investigations near the limits of a great telescope. Therefore the expanding universe can be saved by introducing a sufficient amount of spatial curvature.⁴¹⁹

In an effort to save the “expanding universe” at all costs, Hubble is so desperate that, realizing even “curvature” cannot solve the problem, he proposes that perhaps there was an error in what he saw with his own eyes

⁴¹⁷ *The Observational Approach to Cosmology*, p. 59.

⁴¹⁸ *The Observational Approach to Cosmology*, pp. 54-55.

⁴¹⁹ *The Observational Approach to Cosmology*, p. 60.

through his own telescope. He doesn't know for certain such an error exists, but he depends on it nevertheless. This is quite ironic since Hubble's book is titled, *The Observational Approach to Cosmology*, wherein the operative word is "Observational." Is he going to believe what he "observes" or not? In the end, Hubble's view is not about what Hubble "observes" but only what his philosophical presuppositions will allow him to believe. In the end Hubble makes a travesty of "observational" cosmology.

As far as modern science is concerned, Hubble remains somewhat of an enigma. Although he dismissed the viable Earth-centered solution for his "observations," his book leaves his colleagues with an equivocation they would rather he not have said: "Two pictures of the universe are sharply drawn...we seem to face, as once before in the days of Copernicus, a choice..."⁴²⁰ The science establishment, naturally, has made a concerted effort to ignore this equivocation. As they did in order to support Einstein's Relativity theory when, in 1919, the world's scientists promoted only one of Eddington's eclipse photographs (and ignored the rest) to show anyone who would believe them that light bent around the sun in accord with the predictions of General Relativity, so they ignore Hubble's alternate interpretation of redshift and cite only his initial paper of 1929, for it appears to be the only one that indicates redshift as the sole indicator of radial velocity. These unconscionable breeches of protocol are common in the science establishment. In most cases, only the evidence supporting the prevailing view will be published in the journals and popular books.

All in all, the importance of this cross-section of astrophysical theory cannot be underestimated due to the esteem Hubble enjoys as the world's greatest astronomer of the twentieth century. As Sandage says of Hubble: "His success was remarkable, and his proportionate influence nearly unparalleled in modern astronomy."⁴²¹ But as they did with Humason, so they did with Hubble. If a scientist does not support the *status quo*, he or

⁴²⁰ Edwin Hubble, "The Problem of the Expanding Universe," *American Scientist*, Vol. 30, No. 2, April 1942, pp. 99f; *The Observational Approach to Cosmology*, p. 21, emphasis added.

⁴²¹ Allan Sandage, *Journal of the Royal Astronomical Society of Canada*, Vol. 83, No. 6, Dec. 1989.

she is ostracized or reinterpreted, and that is why hardly anyone in college physics classes knows of Hubble's alternatives or the grave problems he saw in the redshift/velocity relationship.

Irrespective of his quandary regarding whether redshift is related to velocity, Hubble's proposed age of the universe gave at least some semblance of a time-scale that would not force science to capitulate to the six-day creation of Genesis. In his 1953 George Darwin lecture he states:

When no recession factors are included, the law will represent approximately a linear relation between redshifts and distance. When recession factors are included, the distance relation is...accelerated expansion... the age of the universe is likely to be between 3000 and 4000 million years, and thus comparable with the age of rock in the crust of the Earth.⁴²²

Notice Hubble gives only 3-4 billion years for the "age of the universe," not the age of the Earth. This is what is known in cosmology as "Hubble time," since it was derived directly from Hubble's Law of Expansion, and it was only one of three dating methods used at that time, the other two being radiometric dating by isotope decay and the composition of stars. But Hubble's conclusions caused quite a problem. A universe expanding for only 3-4 billion years would mean the Earth, which was understood to come long after the initial expansion, would not be old enough to match the evidence from radiometrics that Earth itself had to be at least 3-4 billion years old, which would require the universe to be much older. Obviously "Hubble time" was far lower than allowed by radiometric dating or star composition. In fact, even though Sandage claims that Hubble's 3-4 billion-year time-span is based on "no recession factor" (and, therefore, Hubble's time-span would be higher if a recession were included), nevertheless admits:

There was, of course, the embarrassment that the inverse of the Hubble expansion rate (*i.e.*, the Hubble time) was only two billion years on

⁴²² "The Law of Redshifts," George Darwin Lecture, May 1953, *Royal Astronomical Society*, 113, 658. Allan Sandage claims that the sentence "the age of the universe is likely to be between 3000 and 4000 million years" refers to the fact that "no recession factor is included," but this cannot be proven based on the syntax of Hubble's paragraph.

Hubble's 1930 to 1953 distance scale whereas the Earth was believed to be a bit older than three billion years even in 1936. It was left to the inventors of the steady state cosmology to emphasize this discrepancy of time scales, pointing out that any of the Friedmann models (*sans* cosmological constant) that were used to espouse a 'beginning' could not be true"⁴²³

Father Georges Lemaître had quite a convenient explanation for Hubble's problem. In his model, the universe expands, but it reaches a point where the expansion slows down, at least long enough to allow the Earth to age sufficiently to match radiometric dating.⁴²⁴ What causes this "slow down" is anyone's guess, for Lemaître gives his readers no clues. Arthur Eddington, not liking Lemaître's concept of at least some beginning to the universe, writes: "Philosophically, the notion of a beginning of the present order of Nature is repugnant to me....I should like to find a genuine loophole."⁴²⁵ Hence, as he did when he turned the inconclusive 1919 eclipse photographs into a decisive support for General Relativity, Eddington shows he also is not above twisting the evidence to support his own philosophy. Nothing less than an infinite universe was on Eddington's agenda. By now we know the motivations for preferring an infinite universe – it needs no Creator, and thus there is no God to whom Eddington must answer.

Lemaître then continued the see-saw. Trying to pacify Eddington, Lemaître suggested the universe evolved from a single, primeval atom. This would, he hoped, "be far enough from the present order of Nature to be not at all repugnant." He writes:

We could conceive the beginning of the universe in the form of a unique atom, the atomic weight of which is the total mass of the

⁴²³ Allan Sandage, *Journal of the Royal Astronomical Society of Canada*, Vol. 83, No. 6, Dec. 1989.

⁴²⁴ Georges Lemaître, "A Homogeneous Universe of Constant Mass and Increasing Radius Accounting for the Radial Velocity of Extra-Galactic Nebulae," *Royal Astronomical Society*, 91, 1931, pp. 483ff, translated from the original French paper published in 1927.

⁴²⁵ Eddington, "End of the World: From the Standpoint of Mathematical Physics," *Nature*, 127, 1931, p. 450.

universe. This highly unstable atom would divide in smaller and smaller atoms by a kind of super-radioactive process.⁴²⁶

Lemaître's view was eventually dubbed the "cosmic egg" theory, and eventually led to the concept of the "Big Bang," the popular term originally coined in jest by Sir Fred Hoyle. In essence, while Lemaître roosted on the "cosmic egg," Arthur Eddington advocated a "cosmic chicken," a universe, as he desired, which "allows evolution an infinite time to get started."⁴²⁷ Hence, the question of which came first, the "cosmic egg" or the "cosmic chicken," would dictate the course of all the various theories of cosmology proposed in the twentieth century.

Lemaître, being a Catholic priest and thus committed to at least some semblance of exegetical logic, had his own problems, since the only "cosmic egg" to which Genesis gives any credence is the "Earth, without form and void" on the first day of creation. So if the Earth is the first thing in existence, then there cannot be a Big Bang or a cosmic egg. Consequently, any cosmological theory positing the universe began with something other than the Earth has simply misinterpreted, ignored, or rejected, the words of inspired Scripture. Unfortunately, many Catholic scholars were doing just that in the period Lemaître was writing.

Be that as it may, to answer Fr. Robinson's implication more directly, redshift no more proves the speed of light than spinning galaxies prove the existence of dark matter. It is all theory devised from desperate attempts to keep Earth out of the center and have the universe be the result of billions of years of evolution. Even then, Hubble fudged with the evidence, since when he first devised the balloon universe, the most he could get out of it was 1.86 billion years of time,⁴²⁸ which was certainly not the time needed for the multi-billion years of the universe's existence being suggested by

⁴²⁶ Georges Lemaître, *The Primeval Atom: An Essay on Cosmogony*, trans. Betty and Serge Korff, 1950, pp. 99-100.

⁴²⁷ Georges Lemaître, "On the Instability of Einstein's Spherical World," p. 672. See also "The Instability of the Einstein Universe," W. B. Bonnor, *Royal Astronomical Society*, December 9, 1954.

⁴²⁸ "The initial instant, the famous t_0 , is back in time about 1,860 million years. In the favoured, expanding worlds of relativistic cosmology, the period was generally called 'the age of the universe,' the time-interval since the expansion began" (*The Observational Approach to Cosmology*, p. 42).

radiometric dating for the age of the Earth. Hubble had to go back to the drawing board several times to “fix” his Hubble “constant” to provide paleontology with a better number.

USING HUBBLE’S EQUATION FOR THE BIBLE

All that being said, there is something even more interesting that occurs when we use Hubble’s own theory and put it into biblical parameters. If we were to use Hubble’s primary thesis that redshift is a velocity/distance indicator and plug in the biblical numbers, what would we get? Let’s calculate it out.

The age of the universe is calculated by the formula $T = T_0 (1 + z)^{-3/2}$, where T_0 is the current age and z is the redshift factor of the object.⁴²⁹ Let’s say NASA finds a distant object in the sky and assigns it a z -factor of 1. NASA will then plug in the value for T_0 as 13.7 billion years (the time they believe the Big Bang occurred) and will compute a value for T , which is understood as the age of the universe when the radiation emission of the distant celestial object took place. In the case, where $z = 1$, then $T = 4.844$ billion years.

Since using the number 13.7 billion years is completely arbitrary (for it is based on the unproven assumption of a Big Bang universe), let’s say we assume T_0 is 6,000 years instead of 13.7 billion. In this case, where $z = 1$, then $T = 2,121$ years.

In other words, when an astronomer sees a star with a z -factor of 1, he might just as well assume the universe was 2,121 years old rather than 13.7 billion years old, since the z -factor is only a function of one’s assumption regarding the beginning of the universe. If an astronomer finds an even more distant object that correlates to a z factor of 2, then the age of the universe when the object began radiating was 1,154 years on the biblical scale but 2.6 billion years on the Big Bang scale.

⁴²⁹ This z -factor formula is based on the so-called “dust model” of the universe wherein the major components of the universe do not exert any pressure on their surroundings. But if one were to base the z -factor on the radiation of the CMB in terms of number of particles, the formula would be $t = t_0 (1 + z)^{-2}$. This again, shows the complete arbitrariness of the formulas since they invariably depend on one’s unproven assumptions.

Of course, we don't interpret either the 2,121 years or 1,154 years as the different times that two stars were created, for we hold, on a dogmatic basis, that all the stars were created on the same day, the Fourth Day. Hence it only means, as the firmament expanded and carried the variously placed stars within it, their wavelength would be stretched by their medium, the firmament, in proportion to the distance they were originally placed from Earth.⁴³⁰ Thus, if we were to understand redshift as a distance indicator, what we see as differences in redshift values today is merely the result of the differences of the original placement of the stars on the Fourth day of creation. The stars that were placed closer to Earth will now exhibit lower redshift values today, and vice-versa for the stars placed farther away.

We could also use modern science's formula for measuring the age of the universe when the cosmic microwave radiation (CMB) was released. If so, we get very close to the time we have predicted the firmament would create the 2.73° Kelvin temperature. Again, the formula is $T = T_0 (1 + z)^{-3/2}$. Plugging in a z -factor of 1,089 for the CMB, the Big Bang theory arrives at a universe age of 380,711 years after the primordial explosion for the arrival of the CMB. But if we use the biblical numbers (noted above) and the same z -factor of 1,089, we obtain 0.16672 years after the Light was created for the expansion of the firmament, which puts the CMB well within the first two months of the first year of Creation.

Fr. Robinson: To avoid this problem, Brown has recourse to the same strategy of nature law changes: he believes that the speed of light has slowed over time. It used to be much quicker and so the light from those distant stars has actually reached us in a shorter period than our measurements have indicated. (p. 272).

R. Sungenis: Not that I concur with Walt Brown's understanding of how starlight can appear on Earth in a short time, but let's deal with Fr. Robinson's accusation against Walt Brown. Fr. Robinson claims if the speed of light changes from one time to another, this is a violation of the laws of nature. Is it? Says who? Fr. Robinson doesn't tell us. He just

⁴³⁰ See 1Co 15:41, which teaches that "star differs from star in glory," presumably because of their specific composition and purpose, which required them to be placed at different distances from the Earth.

assumes light speed can't change. Perhaps he is thinking a light speed constant is just like the Fine Structure constant; or Avogadro's constant; or any number of the two-dozen constants that nature depends on. But there is a very curious anomaly about light speed in nature. It is only constant in an inertial frame (one with no acceleration) and a non-gravity frame, not to mention it must also move in a vacuum. So as long as those conditions are evident, at least terrestrially, we have measured light speed to be 300,000 km/sec, give or take. In that sense we can consider it constant, that is, it will always travel the same speed under those specific conditions.

But let's be real. Do we know of any place on Earth, our solar system or out in deep space in which all those conditions are satisfied? No, we don't. Not even close. The universe is filled with gravity and acceleration in every place we look. Even Fr. Robinson's "expanding universe" is accelerating outward at every point in the universe (although he hides the fact that it is accelerating way beyond the speed of light and will continue to accelerate way beyond what it is now).

So what is the speed of light in a universe that is constantly accelerating outward? Obviously, it's not going to be 300,000 km/sec, since that speed only applies to a non-accelerating environment. And what about gravity? When we arrive at 300,000 km/sec on Earth, we are measuring the speed of light in Earth's gravity, which is very small compared to the gravity in outer space. What would be the speed of light in which the gravity is intense? And what about a vacuum? What is a vacuum? If we suck all the air out of a container we call it a "vacuum." But does that mean there is nothing, absolutely nothing, in the container? If so, we just broke a "law of nature," since nature says that "nothing" cannot exist. There must be "something" still in the container, but it apparently is so discrete we cannot detect it with our menial instruments.

So, claiming "light speed is constant" has a lot of baggage attached to it. This is especially true when we find out that when the speed of light as " c " was originally documented in an equation by Maxwell, he stipulated this speed applied to light traveling in "ether." This meant if the ether moved and the light beam was going through moving ether, then the relative speed of the light for an observer outside the ether would be the speed of the ether plus the speed of the light beam. So, we have another condition

that must be met for the speed of light to be constant to an observer, namely, the speed of the ether must be zero.

Another fact of history will give us pause. Only in Einstein's Special Theory of Relativity is the speed of light said to be constant. The Special theory said that as long as light moves in an inertial frame devoid of both inertial forces and gravity, the speed will remain constant.

But in Einstein's General Theory of Relativity (which includes gravity and inertial forces), invented just 10 years later in 1915, he said light can go any speed! Here are his own words stated in his 1920 book, *Relativity: The Special and the General Theory*:

In the second place our result shows that, according to the general theory of relativity, the law of the constancy of the velocity of light *in vacuo*, which constitutes one of the two fundamental assumptions in the special theory of relativity and to which we have already frequently referred, cannot claim any unlimited validity.⁴³¹

As noted relativist, William G. V. Rosser, put it:

If gravitational fields are present the velocities of either material bodies or of light can assume any numerical value depending on the strength of the gravitational field. If one considers the rotating roundabout [earth] as being at rest, the centrifugal gravitational field assumes enormous values at large distances, and it is consistent with the theory of General Relativity for the velocities of distant bodies to exceed 3×10^8 m/sec [c] under these conditions.⁴³²

So much for the "constant speed" of light. If light is moving in outer space where the stars and galaxies that fill the universe with gravitational and inertial forces which directly affect the speed of light, who would be so cavalier to claim light speed can never change? Only those who don't look at the requirements of their own natural science and its "laws."

⁴³¹ Albert Einstein, *Relativity: The Special and General Theory*, 1920, p. 76; Methuen, London. Albert Einstein, *Relativity: The Special and the General Theory*, authorized translation by Robert W. Lawson, 1961, p. 85.

⁴³² *An Introduction to the Theory of Relativity*, William G. V. Rosser, 1964, p. 460.

Fr. Robinson: Sometimes, you hear creationists proposing the idea that God just created the trail of starlight at the same time that He created the star. They do not realize that they are repeating a proposal of William of Occam with such a theory. For Occam once stated that ‘the light of stars and the stars themselves could be conceived as existing independently of one another’. If that is the case, we are not even able to say that stars are the cause of starlight. Having detached one effect from its cause, we will naturally move on to affirm that we can never safely infer that this or that creature is the cause of a given effect. It is at this point that all of our causal knowledge becomes false. (p. 273).

R. Sungenis: If true, then perhaps Fr. Robinson can give us the “cause” of the Big Bang he believes in. As we noted earlier, Fr. Robinson is in the same dilemma he tries to put his opponents, since he can cite no natural cause for the explosion, other than God’s divine fiat. But if God must make the Big Bang occur by divine fiat, what would be wrong with God making star light trails at the same time he made the star?

Fr. Robinson: First, however, we must ask ourselves: is God’s honour really served by destroying the very foundations of human reasoning in order to uphold a strictly literal interpretation of the Bible?

R. Sungenis: Let’s put things in perspective. Fr. Robinson’s own system has at least two points in which God must intervene since Fr. Robinson believes there is no possible natural cause for his long-age universe. The first intervention would necessarily come when his singularity has to explode into a Big Bang, since modern science can present no cause to explain why there had to be an explosion (other than their ‘anthropic principle,’ which claims they know it had a natural cause by the fact that we are here talking about it). The second intervention would necessarily come when biological life had to be created, since Fr. Robinson believes biological life cannot come from the non-biological. So, for four of the days of Genesis 1 (*i.e.*, Day 1, Day 3, Day 5 and Day 6), Fr. Robinson has divine intervention taking place, regardless of how long his ages are in between these stages. So the real difference between Fr. Robinson and the six-day creationist is that the latter assigns divine intervention to all six days of Genesis 1, whereas Fr. Robinson assigns it to four days. Yet Fr. Robinson talks as if his system is devoid of such divine intervention and is only interested in natural causes we recognize by “human reasoning.” But

Fr. Robinson is not being honest with his own system, not to mention that for the other two days of Genesis 1 (Day 2 and Day 4) he has no explanation for the former and somehow believes the latter can develop all on its own despite the “causal” second law of thermodynamics that says it can’t. Gee, what a mess you’ve gotten us into, Ollie!

Fr. Robinson: The last and most important position which creationists commonly adopt and which openly conflicts with the finding of science regards the Flood narrative of Genesis 7 and 8. The language used in those chapters, if taken in a strictly literal sense, would seem to indicate that the Flood covered the entire Earth, and this is the way that the fundamentalists read it....This position on the Flood as being geographically universal meets with serious scientific difficulties. For one, how can you get enough rain to cover the entire earth? Whitcomb and Morris not that...

Whitcomb and Morris: If all the water in our present atmosphere were suddenly precipitated, it would only suffice to cover the ground to an average depth of two inches.

Fr. Robinson: Thus, the solution which is now familiar to us becomes necessary, that is, postulating a different set of natural laws for the past:

Whitcomb and Morris: The implication seems to be that the antediluvian climatology and meteorology were much different from the present.

Fr. Robinson: In other words, the laws operating on the Earth today cannot be applied to the time of Noah. (pp. 273-275).

R. Sungenis: Let’s read Whitcomb’s and Morris’ words very carefully. Do you see anything saying what Fr. Robinson accuses them of saying, namely, “the laws operating on the Earth today cannot be applied to the time of Noah”? No, not a peep. As is usually the case, Fr. Robinson creates his own straw man so he can set aside his opponent’s viewpoint and claim victory. The only thing Whitcomb and Morris say is the pre-flood climate was different than it is now; period, full stop. That would be no different than me saying the climate of New Jersey was a bit colder in the 1960s than it is today, and it would be correct, especially when we discover Earth’s climate moves in cycles. Cyclical weather is, in fact, a “law” of

nature. The upshot is this. There were no changes in the laws of nature when the flood occurred. All the laws stayed the same and God depended on those laws remaining the same (*e.g.*, water fell to Earth by gravity; water sought the volume of its container; water's cohesive force allowed it to accumulate; water's weight and momentum allowed it to cut rock; water's molecular bonding allowed it to evaporate after the flood was over; *etc.*). In the end, if there is any book on the market that attributes the events of the flood to natural causes (save God's initiating it) it is Whitcomb's and Morris' book.

The only thing occurring differently than before was God had to intervene to start the process, just as when Fr. Robinson claims for his system God had to start the Big Bang or God had to create biological life after the non-biological ran its course.

More importantly, we will discover Fr. Robinson leaves out the most important detail of the Whitcomb/Morris explanation of how water could flood the whole earth. Fr. Robinson refers only to the Whitcomb/Morris admission that the atmosphere could not hold any more than two inches of rain to cover the Earth. He then interrupts this explanation and concludes Whitcomb/Morris must then be forced to conclude somehow the laws of nature were different in Noah's day so the atmosphere would have held perhaps a hundred times more water. But Whitcomb/Morris don't say this at all. Let's quote the context of their book. We will see they say just the opposite of what Fr. Robinson infers:

(2) Clouds Not the Source of the Deluge Rains

A global rain continuing for forty days, as described in the Bible, would have required a completely different mechanism for its production than is available at the present day. If all the water in our present atmosphere were suddenly precipitated, it would only suffice to cover the ground to an average depth of less than two inches. The process of evaporation could not have been effective during the rain, of course, since the atmosphere immediately above the earth was already at saturation level. The normal hydrologic cycle would, therefore, have been incapable of supplying the tremendous amounts of rain the Bible record describes. The implication seems to be that the antediluvian climatology and meteorology were much different from the present.

There seems to have been an atmospheric source of water of an entirely different type and order of magnitude than now exists.

(3) Enlarged Ocean Basins

Whatever the source of the Deluge rain, the mass of waters which descended to the earth could hardly have been elevated back into the heavens, because it is not there now. This can only mean that much of the waters of our present oceans entered the oceans at the time of the Flood. This in turn implies that the proportion of land area to water area was larger before the Flood, perhaps very much larger, than at present...Very likely, in order to accommodate the great mass of waters and permit the land to appear again, great tectonic movements and isostatic adjustments would have to take place, forming the deep ocean basins and troughs and elevating the continents. This seems to be specifically implied in the poetic reflection of the Deluge in Psalm 104:5-9....therefore, the Bible makes it abundantly plain that the events associated with the Deluge were of immense geologic potency and must have caused profound geologic changes.

Great volcanic explosions and eruptions are clearly implied in the statement that "all the fountains of the great deep were broken up." This must mean that great quantities of liquids, perhaps liquid rocks or magmas, as well as water (probably steam), had been confined under great pressure below the surface rock structure of the earth since the time of its formation and that this mass now burst forth through great fountains, probably both on the lands and under the seas. By analogy with present phenomena associated with volcanism, there must also have been great earthquakes and tsunamis (popularly known as tidal waves) generated throughout the world. These eruptions and waves would have augmented the Flood waters as well as accomplished great amounts of geologic work directly.⁴³³

R. Sungenis: As we can see, Whitcomb/Morris do not state the rain provided all of the water of a global flood; and they do not state the laws of nature were changed in order to produce the water. They merely say *if* the water came from rain it *would* require a completely different *mechanism* than we have today. In other words, they are only speaking hypothetically. They then offer a solution: the land masses of the Earth,

⁴³³ *The Genesis Flood*, pp. 121-122.

thousands of years ago, were bigger than the oceans. Notice, Whitcomb/Morris do not even entertain the idea that the “laws of nature” have in any way changed. Water still acts like water and land acts like land. They merely offer that if the water came from rain, it would have had a continual source from the Earth; and they consign themselves to saying they really don’t know how it happened, saying, “Whatever the source of the Deluge rain...”

So, far from making the grandiose claims that Fr. Robinson foists on these two gentlemen, they are quite humble and cautious. What we do know is Whitcomb/Morris are not invoking changes in the laws of nature to make their model work, but only, within those very laws, there is the possibility of different “mechanisms” (not different “laws”) at work. For example, if we want to change from a gasoline combustion engine to a diesel combustion engine in order to produce greater efficiency of work per unit of fuel, it doesn’t mean we have changed the laws of nature, but only that we have used a different mechanism. In fact, it can be said we have utilized the “laws of nature” better in the diesel engine than the gasoline engine, and we might even do better if we used a turbine engine or a fuel-injected engine.

Be that as it may, there are many instances, especially in cosmogony and cosmology, in which what we think are the “laws of nature” are actually mere speculations on how nature should work in conjunction with unproven but popular theories. When it is finally discovered the theories can no longer be supported by the reigning “laws of nature,” scientists will often try to change the “laws” to support the theory. This happens quite often in the Big Bang theory when, for example, they propose the “singularity” exploded (which they can’t explain by known scientific laws) and did so very rapidly in a super-inflation (which they can’t explain by any known scientific laws).

Fr. Robinson: Obviously, it is good that these creationists are trying to make sense of the features of the Earth in a scientific fashion. What is wrong is that they are using the Bible as their primary guide in doing so. One of the motivations for Brown to postulate water coming from below is that the Bible describes the waters of the Flood as coming both from the ‘fountains of the great deep’ and ‘floodgates of Heaven’. We

have already seen how, in the Hebrew conception of the world, the Earth has a roof covered with water and an abyss of water surrounding it. Thus, describing the Flood according to the perception of the senses, the Bible speaks of water as coming both from below and from above. Clearly, this is a popular, not a scientific description. (p. 275).

R. Sungenis: Again, we see Fr. Robinson using his straw man to sidetrack the audience. He imposes a flat Earth with a dome and an abyss into the discussion—doing so without the slightest evidence to support the model as being authentically Hebrew—and forces Brown’s thoroughly scientific model into the fantasy model of his own choosing. The reality is, Brown developed his hydro-plate theory from scientific evidence, not ancient Mesopotamian fantasies. It is one of the most detailed scientific studies ever produced, described in 134 pages.⁴³⁴ But since Fr. Robinson doesn’t want to deal with Brown’s scientific findings, it is easier for him to dismiss it all simply by claiming that because the Bible’s account of water from beneath is nothing but a made-up “popular” idea, there can be no scientific theory of a great flood.

Fr. Robinson: To sum up the problem with the creationist position, I can say the following: (1) The Bible was written in a popular style, not a scientific style. It was written to communicate religious truths, not facts of physics. As such, it does not speak with scientific exactitude. To impose a scientific sense upon the Bible, then, is to do violence to the sacred text and the divinely intended meaning. (p. 275)

R. Sungenis: No, the Bible was written neither on a “popular” style nor a “scientific” style. The Bible was written in the language of the day, whether Hebrew or Greek. Sometimes the Bible’s words are simple to understand, sometimes they are not. Sometimes the Bible wants to communicate religious truths, scientific truths, geographical truths, chronological truths, physical truths, salvific truths, prophetic truths or historical truths. Whatever it says, we have the truth in that given area. This is what the Catholic Church has always believed, since the Bible, in its entirety, is understood as inspired by the Holy Spirit and inerrant in all its propositional statements, since God cannot lie. To conclude anything else is “to do violence to the sacred text.”

⁴³⁴ *In the Beginning*, pp. 85-219.

As for the “divinely intended meaning,” we’ve already commented on the penchant of liberal exegetes, like Fr. Robinson, to impose their own meaning on the text and then declare it to be the “intended meaning” of the text. We also saw that Pius XII said the “intended meaning” is the literal meaning of the text. Fr. Robinson and his followers want the right to state what the “intended meaning” is so they can put it in the category of fiction and thus allow themselves to impose a totally different meaning than what the text actually says.

Fr. Robinson: (2) Protestantism, according to its theological blueprint for reaching God, makes use of the Bible alone. Thus, no recourse can be had to an authoritative divine institution either to discover religious truths independently of the Bible, or to discover the religious truths that are in the Bible. This leads naturally to a simplistic, literal reading of all passages, a ‘one size fits all’ pattern of interpretation. (p. 276)

R. Sungenis: Although the Protestants are certainly wrong in declaring the Bible alone is our authority,⁴³⁵ Fr. Robinson is certainly wrong in turning biblical truths into fantasy and declaring he has the corner on determining its “intended meaning.” Further, Fr. Robinson’s dependence on reason not only goes way beyond the limits of human reason; it often uses human reason in an attempt to escape the clear face value language of the Bible. If it were up to Fr. Robinson to give the “intended meaning” of Mt 26:26 (“Take and eat, this is my body”) it is easy to conclude he would reason that Jesus did not intend to give us his actual body in the Eucharist since our reason tells us such things are impossible.

Fr. Robinson: (3) Questions such as the age of the Earth or its position in the universe are essentially scientific questions. Thus, there is nothing wrong with arguing them on scientific grounds. What is wrong is to argue them on Biblical grounds or, even worse, to read the Bible scientifically and then make the observations of science conform to that interpretation. The Bible should not be a player in scientific disputes, because it was never meant to be. Similarly, science should not be a player in religious disputes, something I will explain in the last section of the book. (p. 276).

⁴³⁵ See my book, *Not By Scripture Alone*, Queenship Publishing, 1997.

R. Sungenis: Notice again how Fr. Robinson makes up his own rules, declaring, as if he were a pope or council, what is to be the proper interpretation. He reminds me of Stephen Gould's attempt to form NOMA from his book *Rocks of Ages*. Science can have its "magisterium" and theology can have its. Gould called this wishful relationship "Non-Overlapping Magisterium," or NOMA for short.⁴³⁶ In his view, science is the king of its domain, and Scripture would have to distance itself from anything science claimed, whether it was proven as scientific fact or not. In fact, Gould, and his colleague Niles Eldredge (of the American Museum of Natural History), had a convenient way of turning even their theories into fact. Gould claimed, for example:

Well evolution is a theory. It is also a fact...Einstein's theory of gravitation replaced Newton's in this century, but apples didn't suspend themselves in midair, pending the outcome. And humans evolved from ape-like ancestors whether they did so by Darwin's proposed mechanism or by some other yet to be discovered....Darwin continually emphasized the difference between his two great and separate accomplishments: establishing the fact of evolution, and proposing a theory – natural selection – to explain the mechanism of evolution.⁴³⁷

Of course, Gould and Eldredge were secular evolutionists who didn't give a whit about what Scripture said, although it should be noted that Gould took great pride in his Judaistic roots, but Eldredge laments:

I am a 'lapsed Baptist.'I will say that I am extremely skeptical that the kind of all-knowing, all-caring, all-doing God pictured in some circles exists.⁴³⁸

It appears Fr. Robinson wants a NOMA, too. He doesn't want Scripture (or the Fathers or the Tradition) putting any limits on what scientific theories he is going to propose we should all follow. But, of course, if he wants to be a Catholic, Fr. Robinson simply cannot do so, since the Church, in her history, has always put limits on what science can teach, since if a science theory impinges on already-established doctrine of the

⁴³⁶ *Rock of Ages: Science and Religion in the Fullness of Life*, NY: Ballentine Publishing Group, 1999.

⁴³⁷ "Evolution as Fact and Theory" Discover, May 1981.

⁴³⁸ *Ibid.*, p. 17.

Catholic Church, then it's the science that must either be modified or rejected.

We also notice, throughout his book, Fr. Robinson keeps claiming, without the slightest evidence, geocentrism is a scientific issue, not a theological or biblical one. This is his mantra, and he sings it as dutifully as a Buddhist sings to Buddha. As such, Fr. Robinson simply ignores the historical fact that the Catholic Church said geocentrism was, indeed, a biblical and theological issue, since the Bible declared, as a matter of fact, the Earth did not move; and if it did move, then we could not trust the Bible to give us truth in any area. Not once in his book does Fr. Robinson deal with this issue. But sticking one's head in the proverbial sand is not going to make it go away. It merely shows how Fr. Robinson creates his own historiography to deal with unpleasant realities.

Fr. Robinson: We must assume uniformitarianism, or the consistency of natural laws throughout the history of the universe, for historical science to be possible. That assumption can only find its ultimate justification in belief in a Creator outside of the universe who is able to be a lawgiver for it. Creationism, in attacking uniformitarianism, attacks at the same time scientific enterprise and the consistency of the Creator in His own work. It 'creates' problems for both science and theology. (p. 276).

R. Sungenis: Notice how Fr. Robinson correctly understands his insistence on "uniformitarianism" as something "*we must assume.*" Do you find that as ironic as I do? Here we have a man who insists upon nothing but scientific fact (but no Bible) to decide scientific questions, yet he must depart from scientific fact and "assume" uniformitarianism is the only possible environment in order to answer the scientific questions. And he makes this assumption when he *knows* the Bible teaches catastrophism (a global flood), not uniformitarianism. Could there be an ulterior motive to Fr. Robinson's "assuming"? Looks to me there is.

Moreover, we saw earlier Fr. Robinson's definition of uniformitarianism is out of kilter when he insists that Creationists "change the laws of nature" in order to explain catastrophic events. We saw the Creationists do not do so. They always hold to the laws of nature, whatever they are, and they

also show God will use these very laws each and every time He interjects himself into human history.

Fr. Robinson: In an effort to see what was the standard pre-Vatican II teaching in Catholic seminaries on these questions (pre-Vatican II texts would be, if anything, more conservative than post-Vatican II ones), I investigated several manuals. What I found was that not a single manual advocated any of the Protestant fundamentalist positions. (pp. 276-277).

R. Sungenis: First of all, these manuals are not Catholic doctrine, either official or unofficial. They are the opinions of the men who wrote them (Gigot, Vigouroux, Renié, Simon-Prado). Fr. Robinson has merely picked four manuals that favor his position. The contents of these manuals are not surprising, since three of them are French, and French theologians were some of the leading modernists and liberals during the late 1800s and 1900s, who departed from traditional Catholic teaching against evolution, long-ages and for geocentrism (*e.g.*, de Chardin, Pacquier, Messenger).

As for Fr. Robinson's using of Vatican II as the demarcation point, such a choice was convenient for him since it disallows someone from blaming the change in interpretation on Vatican II—the piñata for everything that went wrong in the Church in the 20th century. Vatican II certainly exacerbated the problems, but it did not do so in a vacuum. Many decades prior the seeds of dissent were being laid by liberal theologians. As early as the mid- and late 1800s liberal Catholics were espousing evolution, heliocentrism, long-ages and a local flood. If not, why does Fr. Robinson think Pius X—the pope after which his own SSPX is named—had to write the anti-modernist 1907 encyclical, *Pascendi*, or the 1909 *Communium rerum*, or the 1910 *Sacrorum antistitum*, or put together the famous Pontifical Biblical Commission in 1909 and give it full authority over biblical interpretation? Obviously there were many theologians espousing non-traditional teachings on the first eleven chapters of Genesis and other parts of the Bible. To fight this, Pius X made all clerics take the 'Oath against Modernism,' a modernism that was teaching as fact some of the very things Fr. Robinson is espousing in his book.

GEOCENTRISM: ROUND TWO

Fr. Robinson: Extend your arm in front of you and raise your index finger. Then close your right eye, followed by your left eye. What do you see? The index finger moves. Why does it move? Because of the distance between your eyes. Looking at your finger with your left eye, you see your finger more to the right; looking at it with your right eye, you see it more to the left. Looking at it with both, you see it in the middle. If heliocentrism is true, something similar will happen when we view stars at different times of the year from Earth....When 61 Cygni is observed from the Earth 6 months apart, it shifts in the heavens by $2/3$ of a second of arc....To this day 'tens of thousands of stars have been subject to parallax measurement.' Does this prove that the Earth moves around the sun? At the very least, it provides a strong indication that such is the case. [Robinson's footnote #95 here states: "Foucault's pendulum and the validity of Newton's law are other ways to disprove geocentrism in empirical fashion. See Jaki, *Questions on Science*, p. 94, and the debate with Sungenis referenced above."] For, why would the stars exhibit this behavior if the universe were geocentric? The only possible explanation would be that the stars are constantly shifting left and right each year between two different positions, doing a sort of yearly stellar line dance. Why would they dance back and forth in tune to the cycle of our sun? There are certainly no scientific reasons for them to do so. As Jaki points out, it was not really until a statistically significant parallax shift was observed that heliocentrism was grounded in strict scientific evidence. Up to that time, there were other, less compelling observational arguments [for heliocentrism], but no clincher. This is an important piece of information for consideration of the controversial 'Galileo case', which is always presented as an instance of the triumph of irrational faith over science and which I must turn to now.

R. Sungenis: As we can see from the short three and a half pages (pp. 279-282) Fr. Robinson devotes to geocentrism, he is going to make the audacious move to stake his claim it is false based on a single experiment regarding stellar parallax. In the larger picture, much of Fr. Robinson's thesis about the 'relationship between religion and science' hinges on whether his interpretation of stellar parallax is right, since if he is wrong, then he has demonstrated to his reader that not only is the geocentric system correct, but every other scientific conclusion Fr. Robinson

proposes in his book is suspect due to the misinterpretation he gives to stellar parallax. This is compounded by the fact that Fr. Robinson does not add analysis of any other scientific experiment to help his case, except an oblique reference in a footnote to “Foucault’s pendulum” and “the validity of Newton’s laws,” thus making the reader assume these two items disprove geocentrism, *ipso facto*. In the end, we will see these two references from Fr. Robinson are nothing but *ipse dixits*.

First, Fr. Robinson himself seems to be a tad bit equivocal in his own assessment of stellar parallax, since he gives us two rather ambiguous statements on its results and meaning, saying, on the one hand,

Does this [stellar parallax] prove that the Earth moves around the sun?
At the very least, it provides a strong indication that such is the case...

...yet on the other hand, he seems more assured when quoting Jaki saying,

As Jaki points out, it was not really until a statistically significant parallax shift was observed that heliocentrism was grounded in strict scientific evidence. Up to that time, there were other, less compelling observational arguments [for heliocentrism], but no clincher.

So, does Fr. Robinson consider stellar parallax just a “strong indication” of heliocentrism or is it “strict scientific evidence” that is a “clincher”?

What this equivocation might tell us is Fr. Robinson is probably aware of the geocentric explanation of stellar parallax and thus limits his own assessment that it points to heliocentrism as only a “strong indication” of heliocentrism rather than Jaki’s clearer assessment that it is a “clincher.” Of course, if Fr. Robinson is not aware of the geocentric explanation of parallax or was aware and just ignored it, then we would immediately question his scientific credibility. In any case, Fr. Robinson never reveals in his book if he knows of the geocentric alternative, which is certainly not abiding by scientific protocol.

Perhaps another reason Fr. Robinson does not seem as certain as Fr. Jaki is later in his book Fr. Robinson says this about scientific truth:

Fr. Robinson: Many moderns have tried to find a way to provide stronger certitude to scientific conclusions, while maintaining the

empiricist reduction of reality. But whether one follows Carnap's verification theory or Popper's falsification theory as the true litmus test for scientific certitude, the conclusions are still necessarily probabilistic, and so at best can be said to approach the truth. (p. 326).

Yet another reason Fr. Robinson should not be so certain about the merits of stellar parallax is it tends to contradict his Big Bang theory. Some stars have a very small or even "negative" parallax, yet have large proper motions (*i.e.*, motions independent from the rest of the star field). It is reasoned that stars with large proper motion are closer to Earth than stars with little or no proper motion. Yet in a sample of stars with a large proper motion, 22.5% were measured by parallax to be at least 300 light years away from Earth.⁴³⁹ Hence if the parallax distance is correct, these stars are moving at tremendous speeds relative to the rest of the star field.

For all the stars in the study, there was a pronounced correlation between the measured parallax distance to the star and its proper motion velocity relative to the sun. A proponent of the Big Bang would be predisposed to interpret this fact as an indication the radial velocity of stars, as measured by Doppler shift from an expanding universe, increases the greater the distance the star is from the sun. But many of these same stars show transverse velocities (*i.e.*, proper motion) in the 100 to 200 km/sec range, which far exceeds their radial velocity estimated at about 50 to 60 km/sec.⁴⁴⁰ Graphing the radial velocity against the transverse velocity produces the following contrast:

Velocity (km/sec)	Doppler Radial Velocity (based on redshift)	Transverse Velocity (proper motion)
0-24	77.8%	4.7%
25-49	18.6%	18.5%
50-74	2.4%	21.4%
75-99	0.7%	15.6%
100-124	0.7%	8.0%
125 & over	0.0%	31.8%

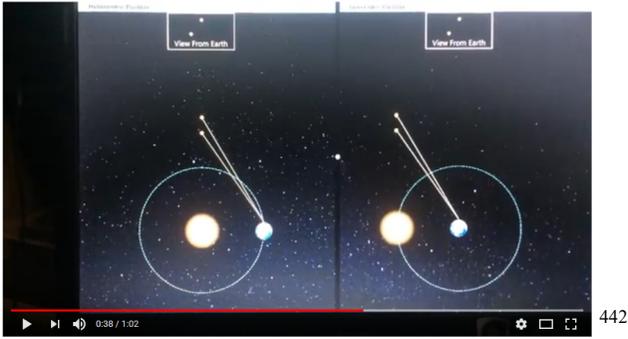
⁴³⁹ Based on parallax and proper motions measured for 276 faint stars by the U.S. Naval Observatory, Washington, DC, as cited in *The Deceptive Universe* by Jerrold Thacker, 1983, pp. 78-79.

⁴⁴⁰ See: transverse velocity: <http://www.youtube.com/watch?v=4bzbv0QR7Fa4>;
radial velocity: <http://www.youtube.com/watch?v=TEWgHtyE3jo>

In the expanding universe of the Big Bang it would be an acute contradiction that the farther away a star is from Earth the more transverse velocity (or proper motion) it would have, but that is what the graph shows. Hence the most logical interpretation of this data is modern cosmology's use of parallax to determine the distance to the stars from Earth is untrustworthy.⁴⁴¹

⁴⁴¹ Other problems include the star Betelgeuse in the constellation Orion. See "A New VLA-Hipparcos Distance to Betelgeuse and its Implications," Graham M. Harper, Alexander Brown, and Edward F. Guinan; *The Astronomical Journal*, 135:1430–1440, 2008 April, stating, "The distance to the M supergiant Betelgeuse is poorly known, with the Hipparcos parallax having a significant uncertainty" (http://iopscience.iop.org/1538-3881/135/4/1430/pdf/aj_135_4_1430.pdf).

Wikipedia sums up the problem as follows: "Since the first successful parallax measurement by Friedrich Bessel in 1838, astronomers have been puzzled by Betelgeuse's apparent distance. Knowledge of the star's distance improves the accuracy of other stellar parameters, such as luminosity that, when combined with an angular diameter, can be used to calculate the physical radius and effective temperature; luminosity and isotopic abundances can also be used to estimate the stellar age and mass. In 1920, when the first interferometric studies were performed on the star's diameter, the assumed parallax was 0.0180 arcseconds. This equated to a distance of 56 parsecs (pc) or roughly 180 light-years (ly), producing not only an inaccurate radius for the star but every other stellar characteristic. Since then, there has been ongoing work to measure the distance of Betelgeuse, with proposed distances as high as 400 pc or about 1,300 ly. Before the publication of the Hipparcos Catalogue (1997), there were two conflicting parallax measurements for Betelgeuse. The first was the Yale University Observatory (1991) with a published parallax of $\pi = 9.8 \pm 4.7$ mas, yielding a distance of roughly 102 pc or 330 ly. The second was the Hipparcos Input Catalogue (1993) with a trigonometric parallax of $\pi = 5 \pm 4$ mas, a distance of 200 pc or 650 ly—almost twice the Yale estimate. Given this uncertainty, researchers were adopting a wide range of distance estimates, leading to significant variances in the calculation of the star's attributes. NRAO's Very Large Array used to derive Betelgeuse's 2008 distance estimate. The results from the Hipparcos mission were released in 1997. The measured parallax of Betelgeuse was $\pi = 7.63 \pm 1.64$ mas, which equated to a distance of 131 pc or roughly 430 ly, and had a smaller reported error than previous measurements. However, later evaluation of the Hipparcos parallax measurements for variable stars like Betelgeuse found that the uncertainty of these measurements had been underestimated. In 2007, Floor van Leeuwen improved upon the Hipparcos parallax, producing a new figure of $\pi = 6.55 \pm 0.83$, hence a much tighter error factor yielding a distance of roughly 152 ± 20 pc or 520 ± 73 ly. In 2008, Graham Harper and colleagues, using the Very Large Array (VLA), produced a radio solution of $\pi = 5.07 \pm 1.10$ mas, equaling a distance of 197 ± 45 pc or 643 ± 146 ly. As Harper points out: "The revised



Be that as it may, in trying to approach the truth of what stellar parallax shows, if Fr. Robinson was aware of the geocentric alternative (but obviously decided not to mention it in his book), what would that alternative be? Above is an animation of heliocentric parallax alongside geocentric parallax.

One can go to the website listed in the footnote, which is a video taken from the *Galileo Was Wrong* CDROM (and which is explained in *Galileo Was Wrong*, Vol. 1, editions from 2006 to 2018) and put on YouTube by one of our patrons. One will see that whereas the heliocentric system has the Earth moving around the sun, the geocentric system has the sun and stars moving in alignment around a fixed Earth. One will see in the upper middle box the view from Earth is identical in both systems. This shows, by its geometric equivalence, stellar parallax cannot serve as a proof for heliocentrism, and those in modern science who have claimed such for almost two centuries are obviously wrong. The only other thing that needs to be done to make this a “clincher” argument is for the geocentrist to

Hipparcos parallax leads to a larger distance (152 ± 20 pc) than the original; however, the astrometric solution still requires a significant cosmic noise of 2.4 mas. Given these results it is clear that the Hipparcos data still contain systematic errors of unknown origin.” Although the radio data also have systematic errors, the Harper solution combines the datasets in the hope of mitigating such errors. The European Space Agency’s upcoming Gaia mission may not improve over the measurements of Betelgeuse by the earlier Hipparcos mission because it is brighter than the approximately $V=6$ saturation limit of the mission’s instruments” (<http://en.wikipedia.org/wiki/Betelgeuse>).

⁴⁴² One can run the animation at

<https://www.youtube.com/watch?reload=9&v=stIDO8QBhww>; or at <https://www.youtube.com/watch?v=Wz08O9SNmcY>

explain how the system works dynamically, that is, within the gravitational and inertial forces of the universe, which will we do momentarily.

Not only does the animation show the geometric equivalence of stellar parallax in both the heliocentric and geocentric systems, secular institutions teaching physics to its college students have also admitted the same. For example, a University of Illinois physics class stated the following:

It is often said that Tycho's model implies the absence of parallax, and that Copernicus' requires parallax. However, it would not be a major conceptual change to have the stars orbit the sun (like the planets) for Tycho, which would give the same yearly shifts in their apparent positions as parallax gives. Thus if parallax were observed, a flexible Tychonean could adjust the theory to account for it, without undue complexity. What if parallax were not observed? For Copernicus, one only requires that the stars be far enough away for the parallax to be unmeasurable. Therefore the presence or absence of parallax doesn't force the choice of one type of model over the other. If different stars were to show different amounts of parallax, that would rule out the possibility of them all being on one sphere, but still not really decide between Tycho and Copernicus. In fact, if we don't worry about the distant stars, these two models describe identical relative motions of all the objects in the solar system. So the role of observation is not as direct as you might have guessed. There is no bare observation that can distinguish whether Tycho (taken broadly) or Copernicus (taken broadly) is right.⁴⁴³

To argue against this conclusion, Fr. Robinson will need to call upon other evidence to discredit the geocentric alternative to stellar parallax, since the reciprocity of the geometry of a geocentric universe with the heliocentric will force him to do so. But before we go there, we must say it is unfortunate and puzzling why Fr. Robinson, if he was aware of the geocentric alternative, did not include it in his book, for its absence means either Fr. Robinson wasn't aware of it (which would then cause us to look with much doubt at his self-acclaimed scientific knowledge), or worse, he deliberately decided to leave it out thus depriving his audience of important factual information that would obviously affect their assessment

⁴⁴³ University of Illinois, Physics 319, Spring 2004, Lecture 03, p. 8.

of Fr. Robinson's whole thesis. In the latter case it would appear Fr. Robinson used his "reason" to hide information from the public because he was favorable to the heliocentric system. I certainly hope such is not the case. In the former case, Fr. Robinson's "reason" was faulty either because he didn't have enough information to make an informed judgment or he simply reasoned wrongly and made a mistake. Whatever the case, his reason led him down a blind path.

The geometric reciprocity between the heliocentric and geocentric systems has been confirmed by many scientists today. On the one hand, the science community has admitted no one has ever found proof the Earth moves at all. As noted by historian Lincoln Barnett: "we can't feel our motion through space, nor has any physical experiment ever proved that the Earth actually is in motion."⁴⁴⁴ Or as physicist Julian Barbour put it: "Thus, even now, three and a half centuries after Galileo's condemnation by the Inquisition, it is still remarkably difficult to say categorically whether the earth moves, and if so, in what precise sense."⁴⁴⁵

On the other hand, the science community has also admitted there is no difference between a geocentric and heliocentric system, both on a kinematic and dynamic level. As Einstein himself admitted:

Since the time of Copernicus we have known that the Earth rotates on its axis and moves around the sun. Even this simple idea, so clear to everyone, was not left untouched by the advance of science.⁴⁴⁶

The struggle, so violent in the early days of science, between the views of Ptolemy and Copernicus would then be quite meaningless. Either coordinate system could be used with equal justification. The two sentences: "the sun is at rest and the Earth moves," or "the sun moves

⁴⁴⁴ Lincoln Barnett, *The Universe and Dr. Einstein*, p. 73.

⁴⁴⁵ Julian Barbour, *Absolute or Relative Motion*, Cambridge University Press, 1989, p. 226.

⁴⁴⁶ Albert Einstein and Leopold Infeld, *The Evolution of Physics*, 1938, 1966, pp. 154-155.

and the Earth is at rest,” would simply mean two different conventions concerning two different coordinate systems.⁴⁴⁷

As astronomer Fred Hoyle, famous for coining the term Big Bang, notes:

Let it be understood at the outset that it makes no difference, from the point of view of describing planetary motion, whether we take the Earth or the Sun as the center of the solar system. Since the issue is one of relative motion only, there are infinitely many exactly equivalent descriptions referred to different centers – in principle any point will do, the Moon, Jupiter....So the passions loosed on the world by the publication of Copernicus’ book, *De revolutionibus orbium coelestium libri VI*, were logically irrelevant...⁴⁴⁸

Tycho Brahe proposed a dualistic scheme, with the Sun going around the Earth but with all other planets going around the Sun, and in making this proposal he thought he was offering something radically different from Copernicus. And in rejecting Tycho’s scheme, Kepler obviously thought so too. Yet in principle there is no difference.⁴⁴⁹

Also from the same book: “Today we cannot say that the Copernican theory is “right” and the Ptolemaic theory is “wrong” in any meaningful sense. The two theories are...physically equivalent to one another.”⁴⁵⁰ Physicist J. L. McCauley who reviewed Hoyle’s book stated it was...

The only brief account, using understandable modern terminology, of what Ptolemy and Copernicus really did. Epicycles are just data analysis (Fourier series), they don’t imply any underlying theory of mechanics. Copernicus did not prove that the Earth moves, he made the equivalent of a coordinate transformation and showed that an Earth-centered system and a sun-centered system describe the data with about the same number of epicycles. For the reader who wants to understand the history of ideas of motion, this is the only book aside from Barbour’s far more exhaustive treatment.⁴⁵¹

⁴⁴⁷ *The Evolution of Physics: From Early Concepts to Relativity and Quanta*, Albert Einstein and Leopold Infeld, 1938, 1966, p. 212.

⁴⁴⁸ Fred Hoyle, *Nicolaus Copernicus: An Essay on his Life and Work*, p. 1

⁴⁴⁹ Fred Hoyle, *Nicolaus Copernicus: An Essay on His Life and Work*, p. 3.

⁴⁵⁰ *Ibid*, p. 88.

⁴⁵¹ Letters on File, 10-1-04.

Other physicists have recognized the same. I. Bernard Cohen states:

There is no planetary observation by which we on Earth can prove that the Earth is moving in an orbit around the sun. Thus all Galileo's discoveries with the telescope can be accommodated to the system invented by Tycho Brahe just before Galileo began his observations of the heavens. In this Tychonic system, the planets...move in orbits around the sun, while the sun moves in an orbit around the Earth in a year. Furthermore, the daily rotation of the heavens is communicated to the sun and planets, so that the Earth itself neither rotates nor revolves in an orbit.⁴⁵²

The famous Richard Feynman says:

... I suspect that the assumption of uniformity of the universe reflects a prejudice born of a sequence of overthrows of geocentric ideas...It would be embarrassing to find, after stating that we live in an ordinary planet about an ordinary star in an ordinary galaxy, that our place in the universe is extraordinary...To avoid embarrassment we cling to the hypothesis of uniformity.

Physicist, Hans Reichenbach, says:

...it is very important to acknowledge that the Copernican theory offers a very exact calculation of the apparent movements of the planets...even though it must be conceded that, from the modern standpoint practically identical results could be obtained by means of a somewhat revised Ptolemaic system....It makes no sense, accordingly, to speak of a difference in truth between Copernicus and Ptolemy: both conceptions are equally permissible descriptions. What has been considered as the greatest discovery of occidental wisdom, as opposed to that of antiquity, is questioned as to its truth value.⁴⁵³

Bertrand Russell adds:

Before Copernicus, people thought that the Earth stood still and that the heavens revolved about it once a day. Copernicus taught that 'really' the Earth revolves once a day, and the daily rotation of sun and stars is only 'apparent.' Galileo and Newton endorsed this view, and many

⁴⁵² I. Bernard Cohen, *Birth of a New Physics*, revised and updated, 1985, p. 78.

⁴⁵³ *From Copernicus to Einstein*, 1970, pp, 18, 82.

things were thought to prove it – for example, the flattening of the Earth at the poles, and the fact that bodies are heavier there than at the equator. But in the modern theory the question between Copernicus and his predecessors is merely one of convenience; all motion is relative, and there is no difference between the two statements: ‘the earth rotates once a day’ and ‘the heavens revolve about the Earth once a day.’ The two mean exactly the same thing, just as it means the same thing if I say that a certain length is six feet or two yards. Astronomy is easier if we take the sun as fixed than if we take the Earth, just as accounts are easier in decimal coinage. But to say more for Copernicus is to assume absolute motion, which is a fiction. All motion is relative, and it is a mere convention to take one body as at rest. All such conventions are equally legitimate, though not all are equally convenient.⁴⁵⁴

The late Stephen Hawking agreed:

Although it is not uncommon for people to say that Copernicus proved Ptolemy wrong, that is not true. As in the case of our normal view versus that of the goldfish, one can use either picture as a model of the universe, for our observations of the heavens can be explained by assuming either the earth or the sun to be at rest.⁴⁵⁵

As it stands, since all modern scientists today have understood and accepted the relativity of motion (*i.e.*, the general principle of relativity), no one can any longer claim or prove the Earth revolves around the sun. This is precisely why we can have two different explanations to stellar parallax. Which one of them is the actual reality will depend on other factors. Thus it was quite foolish for Fr. Robinson to prop up the heliocentric explanation as the only and correct model and use this false information to discredit geocentrism.

As we mentioned, the only other way Fr. Robinson could possibly discount the geocentric alternative to stellar parallax would be to prove, on the dynamic level, it would not be possible for the sun and stars to revolve around a fixed Earth. But this road is going to be just as difficult (or even more so) than trying to use geometry to disprove geocentric parallax.

⁴⁵⁴ Bertrand Russell, *The ABC of Relativity*, London, revised edition, editor Felix Pirani, 1958, pp. 13-14.

⁴⁵⁵ *The Grand Design*, Stephen Hawking and Leonard Mlodinow, 2010, pp. 41-42.

The only established physics we have today is from Newton and Einstein. Although there are other models available, they are mostly variations of either Newton's or Einstein's models. So let's examine both the Newtonian and Einsteinian models to see if they offer any help to Fr. Robinson. The question at issue is, would either of these models prohibit a geocentric universe and make the heliocentric the only viable option of cosmology? Geometrically we already know the answer is no, but now we will examine the question from a dynamic perspective. Along those lines, again, the famous astronomer Fred Hoyle said:

...we can take either the Earth or the Sun, or any other point for that matter, as the center of the solar system. This is certainly so for the purely kinematical problem of describing the planetary motions. It is also possible to take any point as the center even in dynamics, although recognition of this freedom of choice had to await the present century.⁴⁵⁶

Notice Hoyle refers to both the "kinematic" and the "dynamic." The first term refers to the raw geometry which, as we noted above, shows there is no real difference between the heliocentric and geocentric systems since all motion is relative. The second term refers to the forces that will determine how a given system moves or does not move its celestial bodies. It is one thing to claim a certain geometry; it is quite another to prove the geometrical relationships by demonstrating what force or forces are moving the bodies the way the geometry dictates. For example, in the recent debate regarding the contention the Earth is flat, its adherents claim the sun and moon are circling a flat Earth. In some respects their geometry may appear to work, but the crucial issue concerns their lack of dynamics that would allow such a scenario, especially since most of them do not believe in gravity.⁴⁵⁷

Hoyle indicates in his above quotation the "dynamics" of an Earth in the center with the sun and stars revolving around it was finally understood in "the present century," that is, the 20th century. Hoyle is referring to Einstein's general relativity or, at the least, to the 'general principle of

⁴⁵⁶ Fred Hoyle, *Nicolaus Copernicus: An Essay on his Life and Work*, p. 82.

⁴⁵⁷ See my book, *Flat Earth / Flat Wrong* at www.flatearthflatwrong.com

relativity' upon which Einstein's general theory is based. As physicist Galina Granek notes:

According to Einstein, the argument over whether the earth turns around or the heavens revolve around it, is seen to be no more than an argument over the choice of reference frames. There is no frame of reference from which an observer would not see the effects of the flattening of the poles. Thus in frame number 1 (the earth turns around while the sky is at rest), the centrifugal force is a consequence of the earth's motion (uniform acceleration) relative to the heavens. This causes the flattening. In the latter frame, number 2 (the sky rotates and the earth stands still), the centrifugal force should be understood as being an effect of "the rotating heavens," which is generating a gravitational field that causes the flattening of the poles. The two explanations are equivalent as there is equivalence between inertial and gravitational mass.⁴⁵⁸

After seeing Granek's statement, there is really not much more to say. It sums up the case correctly and succinctly. Every motion we see in the sky or on Earth can be explained by either a rotating Earth in a fixed universe or a rotating universe around a fixed Earth. But let's add a few more to confirm that the idea of a rotating universe is accepted by modern physics. Here is the famous Max Born:

...Thus we may return to Ptolemy's point of view of a 'motionless Earth.' This would mean that we use a system of reference rigidly fixed to the Earth in which all stars are performing a rotational motion with the same angular velocity around the Earth's axis...one has to show that the transformed metric can be regarded as produced according to Einstein's field equations, by distant rotating masses. This has been done by Thirring. He calculated a field due to a rotating, hollow, thick-walled sphere and proved that inside the cavity it behaved as though there were centrifugal and other inertial forces usually attributed to absolute space. Thus from Einstein's point of view, Ptolemy and Copernicus are equally right. What point of view is chosen is a matter of expediency.⁴⁵⁹

⁴⁵⁸ "Einstein's Ether: D. Rotational Motion of the Earth," Galina Granek, Department of Philosophy, Haifa University, Mount Carmel, Haifa 31905, Israel, *Apeiron*, Vol. 8, No. 2, April 2001, p. 61.

⁴⁵⁹ Max Born, *Einstein's Theory of Relativity*, 1962, 1965, pp. 344-345. Thirring's model has been duplicated by Barbour & Bertotti (*Il Nuovo Cimento B*, 38:1, 1977) and Joseph Rosen ("Extended Mach's Principle," *American Journal of*

And let's not leave out Einstein himself:

We need not necessarily trace the existence of these centrifugal forces back to an absolute movement of K' [Earth]; we can instead just as well trace them back to the rotational movement of the distant ponderable masses [stars] in relation to K' whereby we treat K' as 'at rest.' ... On the other hand, the following important argument speaks for the relativistic perspective. The centrifugal force that works on a body under given conditions is determined by precisely the same natural constants as the action of a gravitational field on the same body (*i.e.*, its mass), in such a way that we have no means to differentiate a 'centrifugal field' from a gravitational field.... This quite substantiates the view that we may regard the rotating system K' as at rest and the centrifugal field as a gravitational field.... The kinematic equivalence of two coordinate systems, namely, is not restricted to the case in which the two systems, K [the universe] and K' [the Earth] are in uniform relative translational motion. The equivalence exists just as well from the kinematic standpoint when for example the two systems rotate relative to one another.⁴⁶⁰

The principle of equivalence was not limited to Einstein's early use of Mach's mechanics, but also much later. In a 1950 paper the same principle appears, only K and K' are now A and I:

Let A be a system uniformly accelerated with respect to an "inertial system." Material points, not accelerated with respect to I, are

Physics, Vol 49, No. 3, March 1981) using Hamiltonians; and by William G. V. Rosser (*An Introduction to the Theory of Relativity*, 1964) who expanded on Thirring's paper and noted that the universe's rotation can exceed c by many magnitudes; Christian Møller (*The Theory of Relativity*, 1952) who also extended Thirring's paper using a ring universe rather than a shell; G. Burniston Brown ("A Theory of Action at a Distance," *Proceedings of the Physical Society*, 1955) who discovered geocentrism based on Newtonian physics; Parry Moon and Domina Spencer ("Mach's Principle," *Philosophy of Science*, 1959) who arrive at geocentrism using Mach's principle; J. David Nightingale ("Specific physical consequences of Mach's principle," 1976) who transposed the Einstein equation of Mach's principle into Newtonian physics for a geocentric universe; and several others do the same.

⁴⁶⁰ Einstein's October 1914 paper titled: "Die formale Grundlage der allgemeinen Relativitätstheorie," trans. by Carl Hoefer, in *Mach's Principle: From Newton's Bucket to Quantum Gravity*, eds. Julian Barbour and Herbert Pfister, pp. 69, 71.

accelerated with respect to A, the acceleration of all the points being equal in magnitude and direction. They behave as if a gravitational field exists with respect to A, for it is a characteristic property of the gravitational field that the acceleration is independent of the particular nature of the body. There is no reason to exclude the possibility of interpreting this behavior as the effect of a “true” gravitational field (principle of equivalence).⁴⁶¹

This also means, of course, not only the sun but the planets and every other moving object in our system are controlled by the galaxies. As such, it takes the mystery out of inertia and why the planets travel in precise orbits. As physicist Julian Barbour notes:

Kepler’s standpoint is particularly interesting, since he was deeply impressed by Tycho Brahe’s ‘demolition’ of the crystal spheres. Kepler posed the problem of astronomy in the famous words: “From henceforth the planets follow their paths through the ether like the birds in the air. We must therefore philosophize about these things differently.” His response to the problem was very ‘Machian’.... The planets could not possibly follow such precise orbits by a mere inspection of empty space – they must be both guided and driven in their motion by the real masses in the universe, namely, the sun and the sphere of the fixed stars. This deeply held conviction was a decisive factor in Kepler’s discovery of the laws of planetary motion – truly, a pre-Machian triumph of Mach’s Principle.⁴⁶²

As for Newton, we have already covered him in depth earlier, but we will review the salient points here. Newton wanted his model to support only the heliocentric system. Whereas Copernicus provided the geometry as copied from Aristarchus of the Pythagorean school, Kepler and Newton provided what they each thought was the gravity and forces behind it. As Kepler did, however, Newton also sought to apply his laws of motion only to the solar system so, as he says in his 1684 Scholium: “Thence indeed the Copernican system is proved a priori. For if a common center of gravity is computed for any position of the planets, it either lies in the body of the Sun or will always be very near it.” In that enclosed system,

⁴⁶¹ A. Einstein, “On the Generalized Theory of Gravitation,” *Scientific American*, Vol. 182, No. 4, Apr. 1950, p. 14.

⁴⁶² *Mach’s Principle: From Newton’s Bucket to Quantum Gravity*, p. 9.

the smaller Earth would necessarily revolve around the larger sun. But in order to have such an enclosed system, Newton had to make the rest of the universe inert, that is, he made it so the universe would have no dynamical effect on the solar system. Newton claimed the space of the universe was “absolute,” which meant it was firmly at rest and could not move. As we can see, this system is opposed to the open system of modern physics which sees the universe as being relative and moveable, thus an indispensable part of its overall mechanics. Hence the equations Newton developed for his closed system, namely, $F = ma$; $F = GMm/r^2$ or $F = mv^2/r$ dealt only with the bodies in that particular system, one or two at a time, but no more than two. Although Newton’s system seems to work within the margins of error, there have always been problems with it both on the mechanical and theoretical levels.

On the mechanical level, when Newton’s physics are applied to, say, sending up satellites into space, both centrifugal and Coriolis forces must be added in order to thrust the satellite properly, but Newton’s above two equations ($F = ma$; $F = GMm/r^2$) don’t have a symbol for either centrifugal or Coriolis forces. They must be added in by hand in calculating orbits for satellites.⁴⁶³

Additionally, when Newton’s gravitation equation ($F = GMm/r^2$) is made equivalent to the centripetal/centrifugal equation $F = mv^2/r$, a curious thing happens. The small “ m ” cancels on each side, which leaves only the big M , so that we get $F = GM/r = v^2/r$, which means only the larger body determines the orbit of the planet, while the mass of the planet has no contribution, which is a contradiction to the original equation, $F = GMm/r^2$.⁴⁶⁴

⁴⁶³ Per Wikipedia under “Coriolis force”: “As a result of this analysis an important point appears: *all* the fictitious accelerations must be included to obtain the correct trajectory. In particular, besides the Coriolis acceleration, the centrifugal force plays an essential role.” (https://en.wikipedia.org/wiki/Coriolis_force)

⁴⁶⁴ Notice how this website (<http://www.thestargarden.co.uk/Newtons-theory-of-gravity.html>) avoids the problem. In equations 5.15 to 5.18, it recognizes that $F = GMm/r^2$ reduces to equation 5.19: $g = GM/r^2$, which “ g ” it calls “the force of gravity,” but then in equation 5.27 it reiterates $F = GMm/r^2$ and also calls F the “force of gravity.” So which is the correct equation, $F = GM/r^2$ or $F = GMm/r^2$, especially since both descriptive scenarios refer to a smaller body being

Lastly, Newton's equations do not fit the rotation rate of spiral galaxies, which are noted to spin ten times too fast for Newton's derivation. In other words, the " m " is too small in the equation $F = ma$ to get an " a " that is moving ten times faster than F will allow. As we noted, modern science tries to make up for this anomaly by inventing the mass it needs, calling it "dark matter." Indeed, it is as dark as the theory itself.

There are also problems with Newton's mechanics on the theoretical side. As noted by physicist Denis Sciama,

Whether the Earth rotates once a day from west to east, as Copernicus taught, or the heavens revolve once a day from east to west, as his predecessors believed, the observable phenomena will be exactly the same. This shows a defect in Newtonian dynamics, since an empirical science ought not to contain a metaphysical assumption, which can never be proved or disproved by observation.⁴⁶⁵

The "metaphysical assumption" of Newton's that Sciama refers to is Newton's making the universe inert and absolute without having any evidence it was so. Einstein himself noted the same "defect" in Newtonian mechanics:

One need not view the existence of such centrifugal forces as originating from the motion of K' [the Earth]; one could just as well account for them as resulting from the average rotational effect of distant, detectable masses as evidenced in the vicinity of K' [the Earth], whereby K' [the Earth] is treated as being at rest. If Newtonian mechanics disallow such a view, then this could very well be the foundation for the defects of that theory...⁴⁶⁶

In other words, since Newton's system was "absolute" and not "relative," and thus did not allow for the universe to rotate around a fixed Earth and

gravitationally influenced by a larger body? As it stands, the theory contradicts itself here.

⁴⁶⁵ Quoted from Dennis W. Sciama's, *The Unity of the Universe*, 1961, pp. 102-103.

⁴⁶⁶ Hans Thirring, "Über die Wirkung rotierender ferner Massen in der Einsteinschen Gravitationstheorie," *Physikalische Zeitschrift* 19, 33, 1918, translated: "On the Effect of Rotating Distant Masses in Einstein's Theory of Gravitation."

thereby create real centrifugal forces that acted like gravity, then his system was “defective.” Due to the general principle of relativity, any system of mechanics must be able to be converted to its reciprocal in order to be valid. If not, then something is wrong with the theory.

Can Newton’s mechanics be fixed so that it can catch up to modern physics? The answer is yes, as long as Neo-Newtonian mechanics relinquishes “absolute” space (as Leibniz had already suggested to Newton) and allows the universe to be dynamically active instead of inert (as Einstein would soon endorse). Newton had no right to claim the universe was absolute or that it couldn’t move, since he had no evidence or proof. But Newton, in defiance of the Catholic Church which he hated and which had condemned Galileo just about 50 years prior, wanted the Earth to revolve around the sun, as did Kepler for the same reason. A motionless Earth would, in essence, be an “absolute” Earth. So to avoid having an absolute Earth, Newton arbitrarily made the universe absolute so that the Earth would move. This juxtaposition would then allow him to confine the system to the sun and Earth, which would then require the Earth to revolve around the sun.

Two hundred years went by before anyone saw the mechanical and theoretical flaws Newton’s system contained. Ernst Mach was the first. In his book, *The Science of Mechanics*, he showed the general flaws in Newton’s system; and it was Mach who became Einstein’s mentor when Einstein developed his General Theory of Relativity.

Perhaps Newton anticipated all this, but either wasn’t willing to admit it at the time he wrote his *Principia Mathematica*, or wasn’t yet convinced he had evidence for it. At times he hinted at it, such as the following comment: “That the center of the system of the world is immovable: this is acknowledged by all, although some contend that the Earth, others that the sun, is fixed in that center.”⁴⁶⁷ Or perhaps he expounded on it and the page

⁴⁶⁷ Isaac Newton, *Philosophiae Naturalis Principia Mathematica*, Book 3: *The System of the World*, Proposition X, Hypothesis I. Latin original: Centrum systematis mundane quiescere. Hoc ab omnibus consessum est, dum aliqui terram, alii solem in centro systematis quiescere contendunt. Videamus quid inde sequatur.” In Proposition XI, Theorema XI, Newton adds: “That the common center of gravity of the Earth, the sun, and all the planets, is immovable. For that

which shows this admission somehow never got published. The very last page of Newton's 1687 *Principia* contained Newton's "Proposition 43, Theorem 22," which laid out the dynamical basis of how it would be possible for the Earth to be motionless in the center of the universe and for the sun and stars to revolve around it. As we determined above, this would involve Newton relinquishing his "absolute" and "inert" universe for one which had dynamic properties that directly influenced our solar system.

This amazing story about Newton is perhaps best told by George E. Smith of Tufts University in his essay titled: "Newtonian Relativity: A Neglected Manuscript, an Understressed Corollary,"⁴⁶⁸ and reiterated by the famous physicist, still alive today, Steven Weinberg. In his book published in 2015 titled, *To Explain the World*, Weinberg says the following:

If we were to adopt a frame of reference like Tycho's in which the Earth is at rest, then the distant galaxies would seem to be executing circular turns once a year, and in general relativity this enormous motion would create forces akin to gravitation, which would act on the Sun and planets and give them the motions of the Tychonic theory. Newton seems to have had a hint of this. In an unpublished 'Proposition 43' that did not make it into the *Principia*, Newton acknowledges that Tycho's theory could be true if some other force besides ordinary gravitation acted on the Sun and planets.⁴⁶⁹

Weinberg's reference to "forces akin to gravitation" refers to inertial forces, such as the centrifugal, Coriolis and Euler forces that we noted earlier. Connecting Newton's suggestion to Einstein's General Relativity, Weinberg indicates, in the view of modern physics, a universe rotating around a fixed Earth will create inertial forces that mimic the force of gravity. As the universe's inertial forces meet the gravitational forces in

center either is at rest or moves uniformly forwards in a right line; but if that center moved, the center of the world would move also, against the Hypothesis." Original Latin: *Commune centrum gravitates terræ, solis & planetarum omnium quiescere. Nam centrum illud (per legum corol. iv) vel quiescent vel progredietur uniformiter in directum. Sed centro illo semper progrediente centrum mundi quoque movebitur contra hypothesin.*

⁴⁶⁸ My thanks to Dr. Smith for his granting me the Power Point presentation and explanation, emailed to me on August 8, 2015, record on file.

⁴⁶⁹ Steven Weinberg, *To Explain the World: The Discovery of Modern Science*, HarperCollins, 2015, pp. 251-252.

our solar system, both will contribute to how the sun and planets will move with respect to each other.

Weinberg notes the inclusion of forces outside the solar system that will allow Tychonian geocentrism are specified in Newton's Proposition 43, which was originally planned to be added to page 510, the last page of the *Principia*. In Proposition 43, Newton says:

In order for the Earth to be at rest in the center of the system of the Sun, Planets, and Comets, there is required both universal gravity and another force in addition that acts on all bodies equally according to the quantity of matter in each of them and is equal and opposite to the accelerative gravity with which the Earth tends to the Sun...

For, such a force, acting on all bodies equally and along parallel lines, does not change their position among themselves, and permits bodies to move among themselves through the force of universal gravity in the same way as if it were not acting on them.

Since this force is equal and opposite to its gravity toward the Sun, the Earth can truly remain in equilibrium between these two forces and be at rest. *And thus celestial bodies can move around the Earth at rest, as in the Tychonic system.*⁴⁷⁰

Thus, by expanding Newton's mechanics to the rest of the universe—which, in Newton's case, means his absolute space will rotate around a fixed Earth—the inertial forces created by the rotation are real forces that are caused by the mass of the universe in angular momentum. In other words, they are forces that actually cause things to accelerate, rather than being merely effects of acceleration (as they were in Newton's original

⁴⁷⁰ Latin: Ut Terra quiescat in centro Systematis Solis Planetarum & Cometarum, requiritur et gravitas universalis, et alia insuper vis quae agit in omnia corpora aequaliter pro quantitate materiae in ipsis et aequalis est gravitati acceleratrici qua Terra tendit in Solem, eique contraria est, tendendo secundum lineas parallelas in plagam eandem cum linea quae ducitur a centro Solis ad centrum Terrae...Nam talis vis in corpora omnia aequaliter & secundum lineas parallelas agendo situm eorum inter se non mutat sed sinit corpora eodem modo per vim gravitatis universalis inter se moveri, ac si non ageret in eadem. Terra vero, cum haec vis gravitati ejus in Solem aequalis sit & contraria, in aequilibrio inter has duas vires manere potest et quiescere. Et sic corpora caelestia circa Terram quiescentem moveri possunt ut in Systemate Tychonico.

system, commonly called ‘fictitious forces’). In this way, the universe’s inertial forces contribute to the movement of everything from the revolutions of the celestial bodies to the directions of hurricanes on Earth and the turning of the Foucault Pendulum. Inertial forces will likewise pull the planets around the sun, and pull the sun and moon around the Earth, and the stars as well. As noted in Newton’s Proposition 43, all of these movements are permitted by Newton’s alternative and confirmed by modern physics.

THE CENTRIFUGAL AND CORIOLIS FORCES

Let’s look a little more deeply into the power of the Coriolis force as it is generated by the angular momentum of a rotating universe. In an article at Wikipedia specifically concerning the Coriolis force, the authors show us its extraordinary power.⁴⁷¹ First, the authors show us the three inertial forces:

- $2\boldsymbol{\Omega} \times \mathbf{v}_B$ is the Coriolis force
- $\boldsymbol{\Omega} \times (\boldsymbol{\Omega} \times \mathbf{r}_B)$ is the centrifugal force
- $d\boldsymbol{\Omega}/dt \times \mathbf{r}_B$ is the Euler force.

Our main interest here is the conclusion concerning the power of the Coriolis force at the end of this section. The article begins:

Components of acceleration:

To determine the components of acceleration, a general expression is used from the article fictitious force [or, pseudo-force]:

$$\mathbf{a}_B = \mathbf{a}_A - 2\boldsymbol{\Omega} \times \mathbf{v}_B - \boldsymbol{\Omega} \times (\boldsymbol{\Omega} \times \mathbf{r}_B) - \frac{d\boldsymbol{\Omega}}{dt} \times \mathbf{r}_B ,$$

in which the term in $\boldsymbol{\Omega} \times \mathbf{v}_B$ is the Coriolis acceleration and the term in $\boldsymbol{\Omega} \times (\boldsymbol{\Omega} \times \mathbf{r}_B)$ is the centrifugal acceleration. The results are (let $\alpha = \theta - \omega t$):

⁴⁷¹ https://en.wikipedia.org/wiki/Coriolis_force, downloaded 08-26-2017

$$\boldsymbol{\Omega} \times \mathbf{r}_B = \begin{vmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \\ 0 & 0 & \omega \\ vt \cos \alpha & vt \sin \alpha & 0 \end{vmatrix} = \omega vt (-\sin \alpha, \cos \alpha),$$

$$\boldsymbol{\Omega} \times (\boldsymbol{\Omega} \times \mathbf{r}_B) = \begin{vmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \\ 0 & 0 & \omega \\ -\omega vt \sin \alpha & \omega vt \cos \alpha & 0 \end{vmatrix},$$

Producing a centrifugal acceleration:

$$\mathbf{a}_{\text{Cfgl}} = \omega^2 vt (\cos \alpha, \sin \alpha) = \omega^2 \mathbf{r}_B(t).$$

Also:

$$\mathbf{v}_B = \frac{d\mathbf{r}_B(t)}{dt} = (v \cos \alpha + \omega t v \sin \alpha, v \sin \alpha - \omega t v \cos \alpha, 0),$$

$$\boldsymbol{\Omega} \times \mathbf{v}_B = \begin{vmatrix} \mathbf{i} & \mathbf{j} & \mathbf{k} \\ 0 & 0 & \omega \\ v \cos \alpha & v \sin \alpha \\ +\omega t v \sin \alpha & -\omega t v \cos \alpha & 0 \end{vmatrix},$$

Producing a Coriolis acceleration:

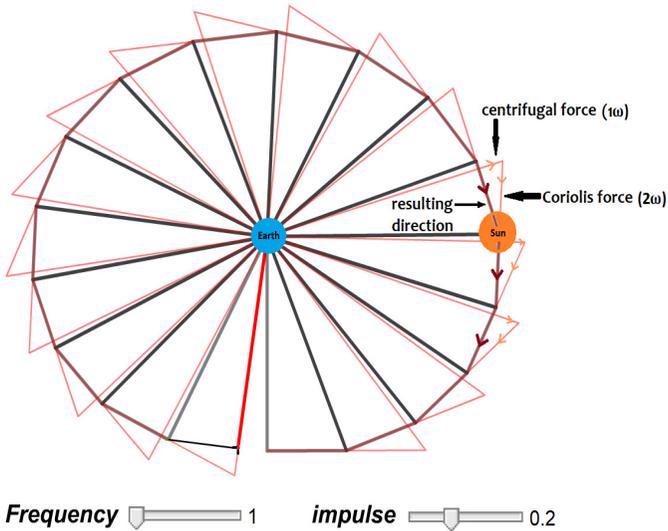
$$\begin{aligned} \mathbf{a}_{\text{Cor}} &= -2[-\omega v (\sin \alpha - \omega t \cos \alpha), \omega v (\cos \alpha + \omega t \sin \alpha)] \\ &= 2\omega v (\sin \alpha, -\cos \alpha) - 2\omega^2 \mathbf{r}_B(t). \end{aligned}$$

These accelerations are shown in the diagrams for a particular example. It is seen that the Coriolis acceleration not only cancels the centrifugal acceleration, but together they provide a net “centripetal,” radially inward component of acceleration (that is, directed toward the center of rotation).

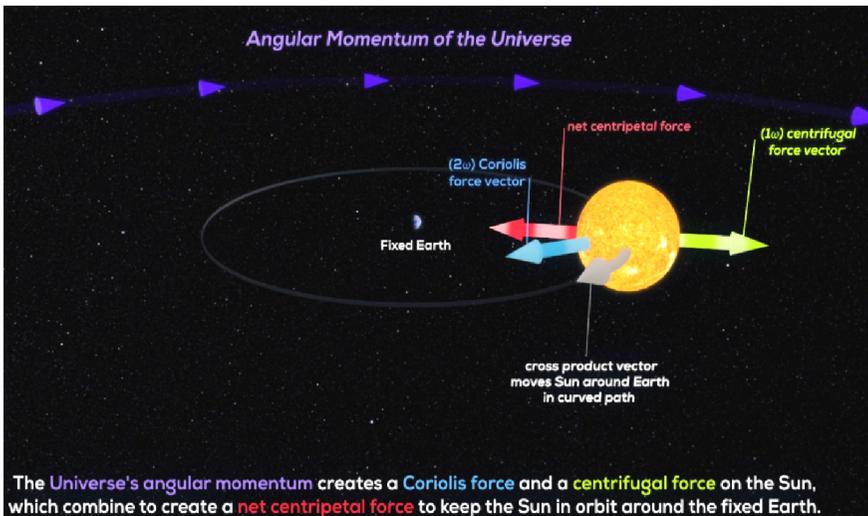
We see, then, the Coriolis force is so strong it neutralizes the centrifugal force and creates a centripetal, inward force, on the celestial body to make it revolve around the center of mass. Obviously, since the Coriolis force has a ‘2’ before the omega vector (*i.e.*, $2\boldsymbol{\Omega}$ or 2ω), and since $v = \boldsymbol{\Omega} \times \mathbf{r}$, we have $2\boldsymbol{\Omega} \times (\boldsymbol{\Omega} \times \mathbf{r})$, this makes the Coriolis force twice as strong as the centrifugal force, $\boldsymbol{\Omega} \times (\boldsymbol{\Omega} \times \mathbf{r})$.

Let’s say we were to look at this situation in Newtonian terms of vectors with impulses (see figure above). In that sense, for every $1\boldsymbol{\Omega}$ force vector moving the Sun outward there would be a $2\boldsymbol{\Omega}$ force vector at

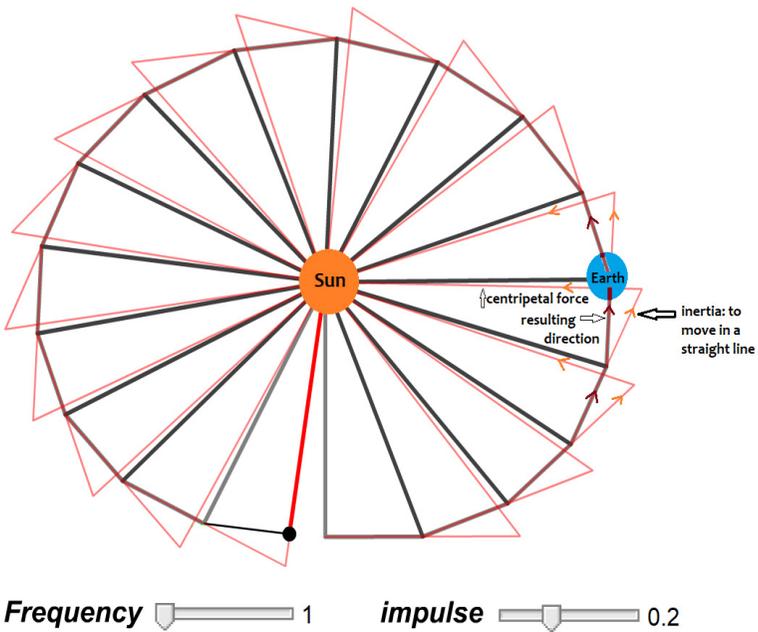
approximately right angles moving the Sun inward, and the resulting direction would be a curved path.

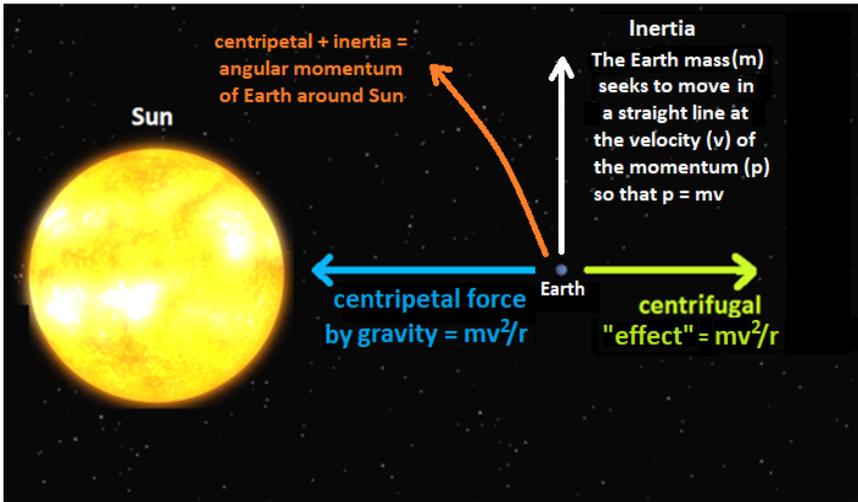


To make the relationship more graphic, we can picture it as represented in the animation below. The green vector is the 1ω centrifugal force; the blue vector is the 2ω Coriolis force; the red vector is the net centripetal force; and the gray vector is the cross product of the centrifugal and Coriolis forces that gives the resulting curved direction of the Sun around the Earth.



As illustrated in the above image, the Coriolis force generated by a rotating universe will keep the Sun in tow around the Earth, even though the Sun is more massive than the Earth. Although the revolving Sun will have a centrifugal force that will seek to move it out in a radial direction, as noted from our authoritative sources, the Coriolis force, along with a slight pull from the Earth, will counteract the centrifugal force and the result is a net centripetal force on the Sun to keep it in orbit around the Earth, similar to when, in the heliocentric system, the Sun, by its gravity, puts a centripetal force on the revolving Earth. In this way, the geocentric inertial forces mimic the heliocentric gravitational force. Using the same Newtonian terms and impulses for the heliocentric system, the various vectors would be represented by the following:





In retrospect, the powerful Coriolis force created by the angular momentum of a rotating universe will not only keep the Sun in tow around the Earth, it will do so for every star, so that all of them, in their particular plane of orbit with respect to the universe's axis of rotation (*i.e.*, their right ascension and declination with respect to Earth) will all revolve around a fixed and central Earth.

Additionally, as noted by physicist Luka Popov concerning the inertial forces,

...if one could put the whole Universe in accelerated motion around the Earth, the pseudo-potential corresponding to pseudo-force will immediately be generated. That same pseudo-potential causes the Universe to stay in that very state of motion, without any need of exterior forces acting on it.⁴⁷²

This means once the universe begins rotating, its angular momentum will keep it turning *ad infinitum*. This system will be the most stable of all systems since the universe is so big and its momentum so great. It will be much more stable than a small Earth rotating in a fixed universe if we consider all the internal and external forces that could act on a rotating

⁴⁷² *European Journal of Physics*, 34, 383-391 (2013).

Earth to slow it down (earthquakes, tsunamis, volcanoes, asteroids, planetary perturbations, solar forces, *etc.*).

Interestingly enough, in addition to Newton’s Proposition 43 allowing a geocentric universe, his mechanics also show the Earth will have no inclination to rotate. When the gravitational and inertial forces are balanced around the center of mass, they cannot generate a torque, and thus the Earth will remain absolutely motionless. As noted by one science reference:

If the reference point **R** is chosen so that it is the center of mass, then the resultant torque (**T**) is zero. Because the resultant torque is zero the body will move as though it is a particle with its mass concentrated at the center of mass. By selecting the center of gravity as the reference point for a rigid body, the gravity forces will not cause the body to rotate, which means the weight of the body can be considered to be concentrated at the center of mass.⁴⁷³

Hence not only will the Earth remain at the center of mass, there will be no turning force to make it rotate with the universe. The equation that leads to a zero-torque effect on the Earth is:

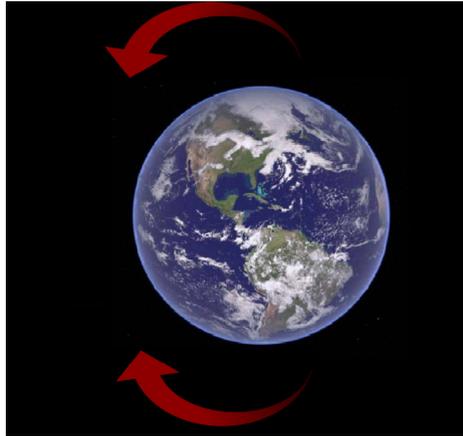
$$T_{orque} = \int_V \rho(r)(r - R) dV = 0 = \text{No rotation of Earth}$$

(Density of Universe)
Point Mass in Universe
(Volume of Universe)

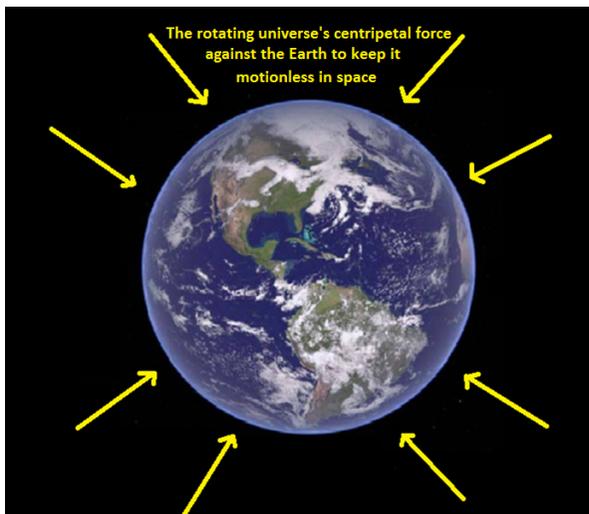
The universal Coriolis force also has a part in helping to keep the Earth stable and non-rotating. Since the Earth is the universe’s center of mass, the Coriolis force is divided into two distinct directional forces on the Earth. In Earth’s northern hemisphere (and, by extension, the northern hemisphere of the universe), the Coriolis force moves in a counter-

⁴⁷³ http://en.wikipedia.org/wiki/Center_of_mass

clockwise direction (which is why hurricanes turn counter-clockwise in the north), but it moves clockwise in the southern hemisphere (and thus hurricanes turn clockwise in the south). These two opposing directions neutralize each other so that the torque on the Earth is again zero.

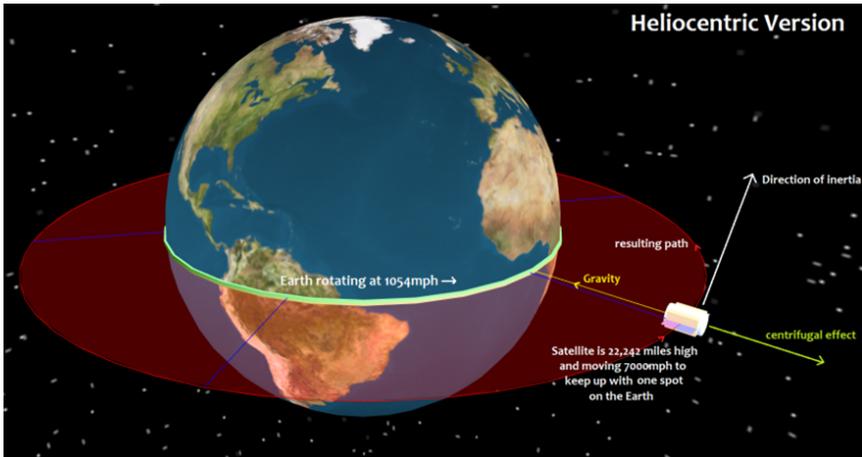


Moreover, since the combination of the stronger Coriolis force, and the weaker centrifugal force will produce a net centripetal force, and since these inertial forces are ubiquitous because they are generated by the rotating universe, the result is centripetal forces coming in a radial direction towards Earth from each quadrant of the universe. As such, this force also helps keep the Earth from moving.



GEOSYNCHRONOUS SATELLITES

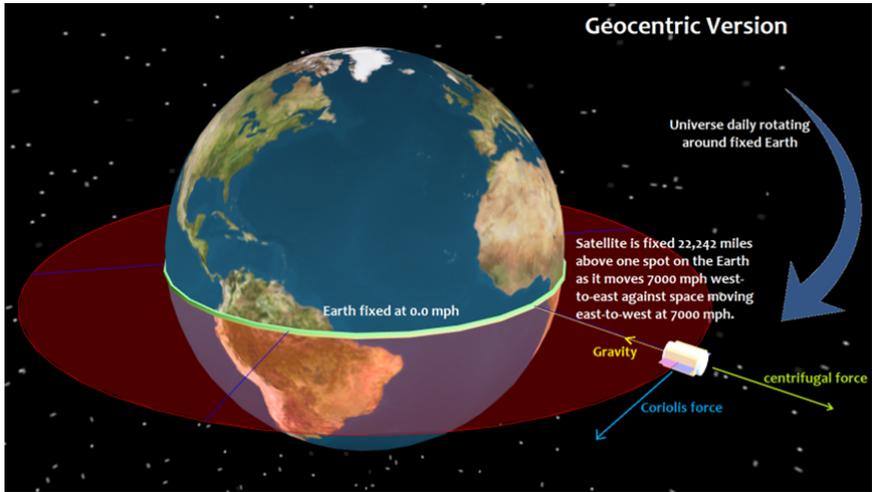
A geosynchronous satellite hovers over one spot above the Earth's equator at an altitude of about 22,242 miles. For some, this is a puzzling phenomenon since it appears that the satellite should just fall to Earth, but it can be explained in both the heliocentric and geocentric systems.



In the heliocentric version, the Earth rotates on its axis at 1054 mph at its equator and thus the geosynchronous satellite must be given a velocity of about 7000-mph in the west-to-east direction in order to keep up with the Earth's west-to-east 1054 mph rotation. Since space is virtually frictionless, the 7000-mph speed will be maintained mainly by the satellite's inertia, with additional thrusts interspersed as needed to account for anomalies. As long as the satellite keeps the 7000-mph, it will remain at 22,242 miles and not be pulled down by the Earth's gravity. This follows the Newtonian model in which the inertia of the geosynchronous satellite causes it to move in a straight line (or its "inertial path"), but the Earth's gravity seeks to pull it toward Earth. The result is that the satellite will move with the Earth in a circular path.

In the geocentric version (see figure below), the Earth and the satellite are stationary while the universe, at the altitude of 22,242 miles, is rotating at 7000-mph east-to-west. Identical to the heliocentric version, the satellite must be given a velocity of 7000-mph (west-to-east) to move against the 7000-mph velocity of the rotating space (east-to-west). The combination of

the universe's centripetal force (centrifugal plus Coriolis) against the satellite's speed of 7000-mph, along with the Earth's gravity on the satellite, will keep the satellite hovering above one spot on the fixed Earth.



There are many other demonstrations of the geocentric system, both geometric and dynamic, that could be shown, but since Fr. Robinson confined himself to stellar parallax and made an oblique reference to "Newton's laws of motion" and the "Foucault pendulum," these are the ones we have considered at the present time, unless Fr. Robinson wants to publicize others he believes support his heliocentric system. Other demonstrations that the geocentric system could show include:

- Stellar aberration, which is simply explained in the geocentric system but is rather difficult in the heliocentric, from which the famous physicist, Hendrik Lorentz concluded, "Briefly, everything occurs as if the Earth were at rest..."⁴⁷⁴
- Airy's Failure, and experiment done by George Biddel Airy in 1871 in which he used two telescopes side-by-side, of which one contained water and the other air. Airy noted that starlight came directly into the two telescopes as if the Earth were at rest and the star was directly overhead

⁴⁷⁴ Lorentz's 1886 paper, "On the Influence of the Earth's Motion of Luminiferous Phenomena," in A. Miller's *Albert Einstein's Special Theory of Relativity*, p. 20.

and had no angle of incidence, strongly indicating the Earth was not moving.

- The 1887 Michelson-Morley experiment, performed to detect the Earth's presumed motion around the sun of 30 km/sec by measuring interference fringes from two light beams, one of which was pointed directly into the path of the Earth's presumed motion. The experiment ended in a "null" result, that is, it could not detect any translational movement of the Earth.
- The 1913 Sagnac experiment, performed to detect the existence of absolute motion by having two light beams go in opposite directions around the rim of a rotating table. The light beams produced fringe shifts showing that one beam was going slower than the other, thus showing the existence of an ether that was responsible for the decreased speed of one of the light beams.
- The 1925 Michelson-Gale experiment, which was based on the same principle of detecting ether drift in light fringe shifts as the 1887 Michelson-Morley experiment, was performed to detect the relative daily rotation between Earth and space and found 98% of the ether drift required for the daily rotation. This showed the daily rotation of the universe around a fixed Earth was confirmed by experiment, while the 1887 Michelson-Morley experiment showed the revolution of the Earth required by heliocentrism had no empirical evidence.
- The redshift of the distant galaxies, discovered in 1929 by Hubble and Humason, showed the Earth was in the center of the universe since Hubble did not see any blueshifts at large distances. Hubble admits he did not prefer to have the Earth in the center and thus re-interpreted the redshift as the result of the Earth/Milky Way and the rest of the galaxies being situated on a two-dimensional "balloon" universe that was expanding and thereby causing redshift
- The CMB (Cosmic Microwave Radiation), discovered in the 20th century by Reber and then Penzias and Wilson, and confirmed by three satellite probes (1990 COBE; 2001 WMAP; 2009 PLANCK) shows Earth in the center of the universe as the CMB forms two axes, one going through the sun/earth ecliptic plane at 23.5 degrees and the other going parallel through the Earth's equator.
- The position of binary stars, galaxies, quasars, BL lacertaes and gamma ray bursts in concentric circles around Earth, based on evidence from the 2005 Sloan Digital Sky Survey.

GALILEO

Fr. Robinson: The primary problem was that Galileo did not have scientific proof for heliocentrism, yet was pushing Church prelates to accept it as a foregone conclusion and change the Church's understanding of Scripture passages that seemed to advocate geocentrism. This was quite a tall order in the early 1600s, because of the delicate atmosphere vis-à-vis Scripture introduced by the Reformers. The latter put forward their strict literal interpretation as a means of paying the Bible proper respect, which they claimed the Church did not possess. Thus, to protect the Church from this accusation, churchmen began to insist 'on a literal sense in as large a measure as possible' [a quotation from Jaki's, *Bible and Science*, p. 117]. Enter Galileo. (p. 282).

R. Sungenis: That Jaki would make such an unfounded claim (and Robinson parroting him without any evidence to support the quote) in the face of Jaki's own 317-page book, *Genesis 1 Through the Ages* (1992), which, by his own admission, he purposely researched to find any Fathers or medievals who agree with his non-literal interpretation of Genesis 1, yet couldn't find a single one, shows how these liberals just make it up as they go along. Jaki desperately wants to give the impression the Church's literal interpretation of Scripture's cosmological passages burst on the scene during the Galileo era without the slightest precedence in the 1600 years prior. As we noted earlier, except for the allegorical attachments to the literal interpretation of Scripture that was in vogue during the Alexandrian exegetical epoch, all interpretations of Scripture were literal, unless the passage was definitively allegorical or metaphorical (e.g., "all the trees clapped their hands"). It was precisely this staunch literal hermeneutic in the Church's tradition that Cardinal Bellarmine pointed to in order to accuse Galileo of departing from it. As for Bellarmine personally, he used the literal exegesis of Scripture in both the Protestant revolt and the Galileo affair and thus he was consistent with the tradition before him. When, for example, the Bible said "a man is not justified by faith alone but also by works," it meant what it said and no amount of mental gymnastics from the Protestants was going to change that clear fact, including Luther's

wish to excise James from the canon. To expect Bellarmine to change from a literal interpretation of Scripture against the Protestants and move to a non-literal interpretation against Galileo is absurd.

Fr. Robinson: Not only did Galileo not have real scientific proof, but he brought forward obviously bad evidence for heliocentrism: he said that the movement of the tides was caused by the rotation of the Earth, not by the attraction of moon. On Galileo's part, this was 'not a mistake, but a delusion.' He so wanted to prove heliocentrism that he seized on a hare-brained theory which other scientists of his day easily prove wrong. (p. 284)

R. Sungenis: The irony of this paragraph is that we could replace Galileo's name with Fr. Robinson's name and it would be just as true. Fr. Robinson's use of stellar parallax as his single attempt to prove heliocentrism was not only short-sighted, it exposed Fr. Robinson's ignorance that the geocentric system had a viable alternative. In a word, we could say that Fr. Robinson "seized on a hare-brained theory which other scientists of his day easily proved wrong."

Fr. Robinson: Armed with his 'proof', Galileo persistently hounded churchmen to intercede with the Pope to make the Scriptural interpretation change that he requested. His aggressiveness at a sensitive time about a delicate issue, combined with this lack of scientific proof, drew down upon him a condemnation of the Church.

R. Sungenis: Like most pro-Galileo apologists, Fr. Robinson gives us more historiography than actual history. Although Galileo certainly was "aggressive" and lacked scientific proof, the Church condemned him as "vehemently suspect of heresy" because the Church had declared and defined heliocentrism a heresy, and this judgment was based on the Church's tradition stemming from the Fathers through the medievals that the Bible teaches geocentrism and thus it was divinely revealed. Additionally, Pope Urban VIII was in protracted discussions with the Grand Duke of Tuscany, Cosimo Medici, declaring between 1632-1633 to the duke that Galileo's teaching was one of the worst abominations ever to come upon the Church considering the repercussions to the Catholic faith it would cause. He considered it a heresy of the highest order.

Fr. Robinson: That condemnation admittedly went too far... (p. 284).

R. Sungenis: Says who? Notice how Fr. Robinson takes it upon himself to judge the Church's magisterium, and do so without the slightest evidence to prove his case. Fr. Robinson believes they "went too far," simply because, like Galileo, he believes the Church was wrong in its judgment to condemn heliocentrism as a heresy and denounce Galileo as suspect of believing that heresy since he thought he had "proof" the Earth moved. Galileo had as much proof as Fr. Robinson has—none.

Fr. Robinson: but in no way did it involve the Church's infallibility or make of geocentrism a dogma of Catholic belief. [Fr. Robinson adds an endnote here to Arthur Koestler's book, *The Sleepwalkers*, p. 425]. (p. 284).

R. Sungenis: So the best Fr. Robinson can do to certify his belief the Galileo affair did not involve the Church's infallibility or make geocentrism a dogma is to give a citation to a page in Koestler's book (who is a Jewish author, not Catholic), and even then without citing Koestler's words? Does Fr. Robinson really expect a good-standing Catholic to consider the pronouncement of a Jewish author? Does he really expect us to consider his statement without at least some evidence from the Church's official pronouncements? If so, then Fr. Robinson is more deeply mired in his bias than we previously thought. But let's pursue this line of argumentation since Fr. Robinson has opened it. As such, when did the Church make an official pronouncement that the decision of the medieval Church "in no way...involves the Church's infallibility"? Where does the Church declare geocentrism is not a "dogma" of Catholic belief? The answer is: nowhere. So how is it Fr. Robinson thinks he knows to the contrary? Well, for the same reason Fr. Robinson thinks stellar parallax disproves geocentrism, that is, from his own "reason." Let's take a look at one of the dialogues I had with Fr. Robinson in which I asked him to explain and clarify his position on these issues:

Fr. Robinson to Mark: To get to your question, we have to understand the exegetical principles of the Catholic Church. The Church is at the service of the deposit of the faith given to her by Our Lord. In that deposit are supernatural truths. Sometimes, there are natural truths that are necessary to support those supernatural truths. For instance, the

death of Our Lord has to be historically true for His resurrection to be historically true. His death is something natural, His resurrection something supernatural. Because Our Lord's resurrection is part of the faith, the Church has Catholics hold to the historical reality of Our Lord's death and His resurrection. As such, she has Catholics interpret literally those passages of the Gospel that recount Our Lord's death and resurrection. Likewise, she has Catholics interpret literally all other passages of Scripture that concern dogmas of the faith.

R. Sungenis: Agreed as such, although you have left undefined what you mean by “dogma.” If you are referring to infallibly defined doctrine, which often is categorized under the rubric of “dogma,” we are certainly in agreement that we must believe such things.

But if you are suggesting that the Catholic Church officially teaches, or has officially taught in the past, that the history contained in the Bible is only true when there is a “supernatural” history in view, I beg to differ. I know of no such distinction between “supernatural history” and “natural history” that the Church has taught regarding the history contained in the Bible. As Bellarmine told Foscarini, as far as biblical history is concerned, it would be just as much an error to claim that Jacob did not have twelve sons or that Jesus did not begin with twelve apostles, as it would be an error to deny that Jesus died and rose from the dead. All three statements deny that the Bible is inspired and inerrant in its history, *ex parte decentis*, and is therefore heretical.

If you know of an official Church teaching that says there is, in regard to inspiration and inerrancy, a difference between the Bible’s recording of a natural event as opposed to a supernatural event, I would certainly like to see your evidence.

If you are thinking of Vatican II’s *Dei Verbum* 11’s statement on biblical inerrancy containing the phrase “for the sake of our salvation” as the basis for such a distinction, the Church has made no official interpretation of *Dei Verbum* 11 that excludes statements that are not dealing directly with salvation from the category of either inspiration or inerrancy. Although “for the sake of our salvation” has been used by many Catholic theologians (e.g., Raymond Brown, et al) as teaching there is a distinction between the inerrancy of salvific and non-salvific biblical statements, the Church herself, in her official statements (“dogmatic,” if you will), has never taught such a distinction. If you

believe and teach otherwise, I would like to see your evidence. In fact, the five footnotes included under *Dei Verbum* 11 teach, as even does *Dei Verbum* 11 itself, that there is no such distinction, and that all scriptural revelation is inspired and inerrant.

Fr. Robinson to Mark: When there comes the question of matters that do not concern dogmas of the faith, such as geocentrism, the Church does not bind her children to a literal or allegorical interpretation of the Bible.

R. Sungenis: Again, you use the phrase “dogmas of the faith” without defining what you mean. If you are suggesting by “dogma of the faith” the doctrines that have the highest endorsement of the Church’s magisterium and require our “full assent” (i.e., Level 1, extraordinary doctrines), I hope you are not likewise suggesting that doctrines of a lower level (ordinary and/or universal) are either in error or have no authority. I’m sure I have no need to reiterate Leo XIII’s and Pius XII’s teaching that even doctrine that has not reached the extraordinary level still require our assent because they are considered authoritative.

Be that as it may, the Church has never ruled on the Church’s 17th century decrees on geocentrism, so it is rather presumptuous to exclude it from either the highest or lesser categories of doctrine without the Church’s official sanction to do so. In fact, no official teaching about the status of the geocentric doctrines proclaimed by Paul V in 1616 or Urban VIII in 1633 has even been stated by a subsequent pope or council, and John Paul II’s speech to the Pontifical Academy of Science in 1992 certainly does not qualify as either extraordinary or ordinary proclamation of doctrine in the Catholic Church, but is only the pious opinion of a single pope who bound no one to his words.

Fr. Robinson to Mark: Rather, she is quite flexible, being willing for arguments from reason to influence her interpretation.

R. Sungenis: Yes, the Church has always allowed “reason,” properly formed, to weigh-in regarding what things are true or false, and whether facts or beliefs are to be considered doctrine, as Leo XIII made clear in *Providentissimus Deus*. But since the Church held as doctrine the issue of geocentrism in 1616 and 1633, and did so by direct appeal to its patristic (and medieval) consensus as taught by the Council of Trent, the burden is surely on “reason” to prove that geocentrism is

false if it wants to assert that “reason” has the right to deny geocentrism.

Prior to that burden of proof, geocentrism stands as a doctrine of the Catholic Church, regardless of what lesser rung of the ladder one desires to put it between the extraordinary and ordinary teachings of the Church. We know it is doctrine by the simple fact that Galileo was condemned as “vehemently suspect of heresy” (just a hair’s breadth from formal heresy) for holding to the teaching of Copernicus that the Earth moved around the Sun. The only way Galileo could be charged with heresy is if the Church already proclaimed that the Copernican doctrine was heretical, since the Church does not make convictions of heresy in a vacuum. The error, if there is any, must then come from those who do not consider geocentrism the Church’s doctrine.

Moreover, as noted above, to be charged with “heresy” means one has denied a “dogma of the faith,” and thus geocentrism was understood by two popes and the Holy Office to be “of the faith,” regardless of what the final level of magisterial teaching it eventually turned out to be, which has not been yet determined by the Church.

Fr. Robinson to Mark: This is why medieval scholastics, centuries before Copernicus, were able to treat in all freedom both theological and scientific arguments for heliocentrism.

R. Sungenis: Your argument suffers from the fallacy of anachronism, since there was no formal doctrinal decision given by the Church to geocentrism prior to 1616. As for the number of arguments for heliocentrism prior to Copernicus, there were very few, since the medievals, led by Aquinas, were almost all geocentrists, and the only exceptions to this fact were theologians such as Nicholas of Cusa or Nicolas Oresme. The overwhelming majority, close to 99%, of the Fathers and medievals were geocentric, and all of them based their belief on the plain words of Scripture, the same Fathers and medievals who based their belief in the sacraments and other Catholic doctrine on the plain words of Scripture.

Suffice it to say, Fr. Robinson never responded to my inquiry. Judge for yourself what kind of man would make such a high-level assertion and not feel obligated to defend it when he is challenged. And with that ends Fr. Robinson’s treatment of both geocentrism and the Galileo affair. In my

honest opinion, an eighth-grade grammar school student could have done better.

RADIOMETRY AND THE AGE OF THE EARTH

Fr. Robinson: The point here, however, is that the age of the Earth has no direct bearing on religious truths. (p. 285)

R. Sungenis: This is another one of those specious and naïve arguments that look intelligent on the surface, but reveal the author doesn't understand how truth is formed and sustained. The reason Fr. Robinson wants to divide truth into two categories, the religious and non-religious, is it will allow him to take the next step in his inevitable quest to deny what the Bible says in its history. Fr. Robinson appears to be the type of person who when asked a question such as: 'what is more important, the engine of a car or the wheels of a car?' 'Or what's more important, Christmas or Easter?' Fr. Robinson will pick one or the other. But the correct answer is both are important, since both are indispensable. Likewise, both the history and the religion are important. The religious truth is no more important than the history. One cannot exist without the other, since both are indispensable.

But modern theologians, like Fr. Robinson, believe they need to drive a wedge between the Bible's history and its religious truths. They do so because they think secular history is more accurate than the Bible's history, though they have never proven it to be true. In every case where the Bible was doubted for its history (*e.g.*, the existence of the Hittites), it was later discovered by further archeological excavations to be true. In not one instance have they ever proven the Bible's geography, population counts, names of peoples or cities, genealogies, etc. to be false.

They also think their history doesn't conflict with the Bible's religious truths, but it does. Evolution history definitely conflicts with the Bible's religious truths because evolution does not contain the infusion of a divinely-originated soul into man, nor does it allow the intrusion of Original Sin. And as we noted earlier, although Fr. Robinson thinks he is safe from this dilemma because he doesn't believe in evolution, only long-ages, he is not really safe. The reason is in trying to play the middle, Fr. Robinson has no cogent reason for long-ages. On the one hand, the only reason modern science wants long-ages is because it needs an indefinitely long time for things to evolve. On the other hand, the Bible's history is

short, containing itself between 6000-7000 years so far, and that is because it doesn't need long-ages either practically or philosophically. As St. Paul says, God wants to do 'a short work on the Earth.'⁴⁷⁵ He doesn't want this cursed world to exist one second longer than it must. So in trying to play the middle, Fr. Robinson becomes the monkey in the middle. For all his stress on "reason," he has no suitable "reason" why God's plan would need billions of years to create man. Without a suitable reason, Fr. Robinson's view is not at all compelling.

Fr. Robinson: G. Brent Dalrymple, in his 2004 work, *Ancient Earth, Ancient Skies*, sketches the failed methods before presenting the successful one. (p. 285).

R. Sungenis: Let it be known at the start Dalrymple is not a Christian; does not believe in the Bible; and has a vested interest in interpreting the geological data so that it doesn't support the Bible's chronology. This can be seen in how he argues his points. It is to debunk "Scientific Creationism."⁴⁷⁶ Be that as it may, the best Fr. Robinson will be able to get out of the totally different interpretation of the data between the non-Christian Dalrymple and the Christian scientists he opposes is the science of dating the world is at best unsettled. And if it is unsettled, then it can't be used as proof for long-ages, and thus the Bible's chronology stands unflappable.

Perhaps those on Fr. Robinson's side of the track will claim Christian scientists are behind the proverbial eight ball and that secular scientists are way ahead of them. The opposite is usually true, as we will see. The very fact Fr. Robinson has to introduce Dalrymple's work as one that "sketches the failed methods" of all the other secular scientists before him means all the previous boasts of "proof" of long-ages were wrong. So what gives us any more confidence Dalrymple has suddenly found the truth, especially when we know his assumptions are the same; his methods are similar; and his motivations suffer with the same anti-biblical bias?

Fr. Robinson: He notes up front the principle of uniformitarianism: 'A fundamental premise of science is that natural laws do not change with

⁴⁷⁵ Rm 9:28.

⁴⁷⁶ http://www.talkorigins.org/faqs/dalrymple/how_old_earth.html

time,' a principle echoed by Jaki: 'sameness and science are inseparable.' As we have seen, this principle fits perfectly and even exclusively with a belief in Creation by an all-wise, immutable God, as well as with the observations of philosophical realism. (p. 285)

R. Sungenis: This argument is another of Fr. Robinson's straw men. There is no Christian scientist who works on these issues who believes "the laws of nature change with time." The laws of nature are the laws of nature. For example, the laws of nature before the Flood are the same laws of nature after the Flood (water runs downhill and takes the shape of its container; too much water suffocates biological life; boats float; rain falls, animals defecate, *etc.*). The question at issue does not concern the laws of nature; rather,

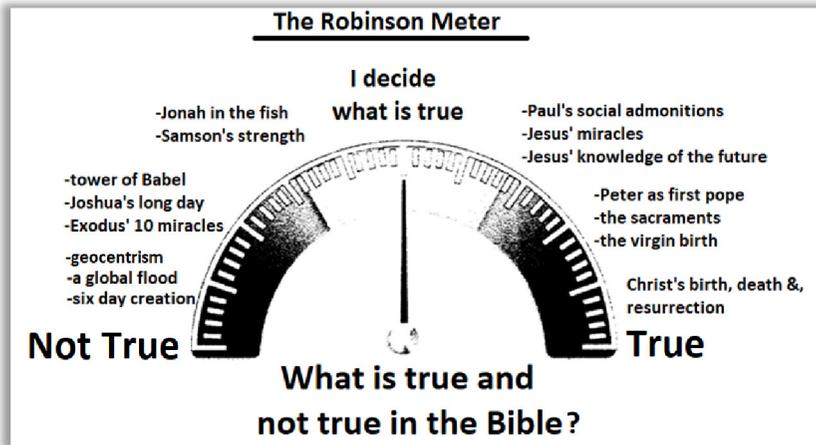
- (1) does uniformitarianism allow specified points of divine intrusion into history causing the history to go toward path B instead of path A it had been on previously?
- (2) within this divine intrusion, does uniformitarianism either recognize or allow for God to use cataclysmic events?
- (3) if both (1) and (2) are denied, what proof, or even evidence, do advocates of uniformitarianism possess that no divine intrusion took place or that there were no natural cataclysmic events in the past that could have created the landscape we see today on Earth?

The answer to all three questions is negative. Basically, uniformitarianism is an anti-biblical belief which holds the events in biblical history that are cataclysmic or even extraordinary (such as six days of creation by divine fiat; the global flood; or even the tower of Babel or the exodus from Egypt, *etc.*), either did not happen or are exaggerated accounts from myths and legends. Once cataclysms are disallowed in the history, the secular scientist can then claim the Earth did not experience any such world-changing events and thus life could develop normally without interruption (except perhaps for a few asteroids that hit the earth and wiped out the dinosaurs, as one popular secular theory proposes). They have no evidence or proof that such normalcy was sustained over the 4.5 billion years they believe the Earth has existed. They must assume it to be the case, and that is because they need it for their theories to pan out.

But in order to sell this wild assumption to a waiting public, they have to dress it up as being perfectly normal, in addition to shifting responsibility or blame on the Bible-believers by making it appear as if they are advocating unscientific “changes to the laws of nature.” The more they can make it appear as if the Bible-believer is the odd man out, so much the better to sell their grand assumption of uniformitarianism to the rest of the world.

Fr. Robinson: In the end, it was the discovery of the radioactive behaviour of atoms in the late 1800s that provided a path to a reliable dating method. Certain elements emit radiation over a period of time. The reason is that they have too many neutrons in their nucleus and, being unstable, periodically emit energy from that nucleus in order to reach stability. When an element does this, it turns into another element, called an isotope. Scientist were able to determine this radioactive behavior of elements, and they found that such decay is extremely constant....Because atomic nuclei are so well protected, it is practically impossible for outside forces to change them; the only way that the nucleus will change, then, is from within....In other words, unless the laws of nature have changed—because of a God acting arbitrarily, the God behind creationist reading of the Bible—radioactive decay has been constant throughout the history of the universe. (p. 286).

R. Sungenis: Notice how cavalier Fr. Robinson is with the historical narratives of the Bible. It’s almost as if he is ashamed these cataclysmic accounts are included in Holy Writ. Not only that, he disdains the God behind them, claiming that, if they were true, then we have “a God acting arbitrarily.” This is where the problem starts with Fr. Robinson—with an inbred disdain or distrust for the Bible’s historical narratives, which is based on his idea the history is somehow on a lesser truth-scale than the salvific or religious descriptions in Scripture—the disease he obtained from the liberal Catholics of the 1900s. Instead of trying to fit the narratives of Scripture into his understanding of scientific processes, Fr. Robinson wants Scripture to be denuded, shaved or shaped to fit the mold of what he believes the processes dictate. If we were to use Fr. Robinson’s truth-meter to categorize his regard of Scripture, it might look something like this (see next page):



So, for example, once Fr. Robinson resolves from his 'reason' that in order for radioactivity to be accurate in detecting long-ages the process of atomic decay must be undisturbed by any outside agent, this immediately eliminates God, man and other external factors from having any possible effect on the process so that the process can proceed naturally and without interruption. Essentially, Fr. Robinson has created his own little world in order to get the desired outcome. Hence any biblical narrative that impinges on this wished-for natural process must be eliminated, which is usually done by the 'historical critical' method of interpretation by which the extraordinary historical events recorded in the Bible are deemed as myths, legends or exaggerations.

Fr. Robinson: Now, when rocks form, they generally have a certain concentration of radioactive elements within them. The decay of these radioactive elements within the rock over time acts like a clock, indicating the age of the rock from the time of its formation. To explain how this is so, let us look at an example based on Dalrymple. Endnote: Ancient Earth, pp. 68-73. The creationist publication *Grand Canyon Monument to Catastrophe* by Steven Austin...pp. 117-119, actually provides a more thorough presentation of the maths behind radioisotope dating than Dalrymple.] (p. 287).

R. Sungenis: The probable reason Fr. Robinson is including Stephen Austin in this analysis is to make it appear a Christian creationist does not disagree with Dalrymple's findings, and thus we can trust Dalrymple.

Fr. Robinson: First, we have to meet the ‘gears’ of the ‘rock clocks’ which count time for us. There are three of them: The parent element—this is the element that undergoes decay at a known rate. In our example, it is Rubidium 87, ^{87}Rb . The number 87 is Rubidium’s mass number, the total number of protons (37) and neutrons (50) in ^{87}Rb nucleus. The daughter isotope—This is the product of the decay of the isotope of the parent element. When an atom undergoes decay, one of the neutrons in its nucleus breaks down into a proton and an electron. The proton remains in the nucleus and the electron joins the atom’s outer shell. Because there is now one more proton in the nucleus, the nucleus is the nucleus of a new element. In our example, the new element formed from Rubidium 87 is Strontium 87, ^{87}Sr . It has one more proton (38), but one less neutron (49). The total number of protons and neutrons in the nucleus has not changed, and so the mass number remains 87. (pp. 287-288).

R. Sungenis: We will accept this paradigm of radioactive decay, at least for the sake of analysis and discussion, but with the *caveat emptor* that what is described above may not be the precise way decay occurs since it is only a model of what modern science believes is occurring in the atom. The above description is more in line with the Bohr model of the atom and does not integrate with the quantum model.

Fr. Robinson: Okay, let us say that God did not create the Earth immediately, but rather that the Earth formed by natural processes sometime after God created the universe. When the Earth forms, so do its rocks. If such is what happened, then we would expect that some of the rocks currently on Earth are from the very beginning of the Earth’s history. So, we pick up a rock that has certain concentrations of ^{87}Rb , ^{87}Sr , and ^{86}Sr in the hopes of obtaining information about the age of the rock and hence of the Earth. Certain pieces of information that we know up front are going to be crucial in finding the rock’s age. (p. 288).

R. Sungenis: So here we have the first problem of Fr. Robinson’s model. God has to create the universe, but the Earth comes into being by “natural processes” at some indefinite time later. If such is the case, from where will these complex atomic structures containing 87 protons and neutrons originate? Most theories about evolutionary cosmology claim the universe started with hydrogen and helium. As stars and galaxies formed (of which there is still no agreement on how they formed) their internal heat factories

created more complex elements such as iron and so forth. But Fr. Robinson has the most complex elements (radioactive elements) being created without the benefit of the stars' factories and thus must remain dependent on the "Earth's natural processes." The problem, of course, is that like most evolutionists, Fr. Robinson has an idealized conception of natural processes, as if once we assign the word "process" to the issue it more or less takes care of itself and we don't need to explain how one gets from simple hydrogen to complex Rubidium. The simpler solution, of course, is that God created the Earth with all the 92 natural elements (and the potential of 113) intact with no "natural process of development" being needed. As it stands, without Fr. Robinson explaining how these complex elements came into being by natural processes, his model is already suspect.

Fr. Robinson: The half-life of ^{87}Rb is 48.8 billion years. (p. 288).

R. Sungenis: Again, we will accept the presumed half-life for the sake of discussion, but with the proviso that since a half-life is the amount of the element exactly half of what it was when first created or formed, then it goes without saying such high half-lives are speculative since no long-ager or evolutionist believes the universe, much less its rocks, is 48.8 billion years old to account for even one half-life, much less a multitude of half-lives. Hence the best the half-life of these radioactive elements can provide is an estimate of what occurs assuming the decay rate believed to be present is actually true.

Fr. Robinson: This means that a rock formed at time 0 with x atoms of ^{87}Rb will have half as many or $x/2$ atoms of ^{87}Rb after 48.8 billion years. The other half will have become ^{87}Sr atoms. Because the half-life of ^{87}Rb is so enormous, there will likely still be some ^{87}Rb left by the time we measure the rock....Using this method and other isotopes besides the rubidium-strontium pair, certain Earth rocks as well as meteorites landing on earth from space have been dated to 4.55 billion years old....Thus, someone wanting to discount the empirical data would have to account for this phenomenon in some other way and, in my mind, it is as difficult as accounting for stars moving left and right in the sky on an annual cycle by a theory other than heliocentrism.

R. Sungenis: We've already seen Fr. Robinson's horrendous treatment of stellar parallax in which he either wasn't aware of the geocentric answer, or worse, he deliberately didn't mention it to his reader. That someone who purports to know the science and yet has no reference to his opponent's model to discuss, and yet pins all his hopes of defeating his opponent on this one phenomenon, would be laughable if it wasn't such a serious indictment against Fr. Robinson's whole approach to both science and religion.

As for Fr. Robinson's treatment of radioactive decay, we have a similar problem. If Fr. Robinson wants to believe the rubidium-strontium decay shows the Earth to be 4.5 billion years old, he can do so. But if one is going to be a true and honest scientist, he must give his opponent's side of the story. Surely Fr. Robinson knows radiometry is a hotly contested and uncertain field of science. Surely he knows there are other viable theories opposed to his. But as was the case in his treatment of stellar parallax, Fr. Robinson implies to his reader there is no opposition. Of course, once the reader graduates to books that study radiometry a bit more seriously and comprehensively than Fr. Robinson does, they will find out just how haphazard or even dishonest Fr. Robinson has been with them.

Although Fr. Robinson claims to be scientific, he treats science in a rather cursory fashion. He picks and chooses when he is going to apply scientific rigor and usually ends up making his own little world. Fr. Robinson pays little attention to the traditional alternative explanations to his views, and that is because he has already decided that Genesis 1 cannot be trusted to give accurate and detailed truth, and that geocentrism is a "conspiracy."

In regards to radiometric dating, Fr. Robinson merely regurgitates what modern secular radiometry dictates, never considering the enormous anomalies in radioactive dating that, if interpreted correctly, actually show short-ages. As one scientist put it:

It is obvious that radiometric techniques may not be the absolute dating methods that they are claimed to be. Age estimates on a given geological stratus by different radiometric methods are often quite

different (sometimes by hundreds of millions of years). There is no absolutely reliable long-term radiological ‘clock.’⁴⁷⁷

Unfortunately, Fr. Robinson decided in the beginning he wasn’t going to allow a divine foot of six-day Creationism into his model based on his already-decided use of long-age radiometry. So, before we begin, let’s remind ourselves of how motivated secular scientists, and even some religious, twist the evidence to their own view point. Interestingly enough, we saw earlier how the twisting of evidence is somehow always related to geocentrism. For example, we saw the cases of Galileo, Newton, Olivieri, Einstein, Hubble, de Chardin, to name a few. Galileo was so desperate to have the Earth move he claimed the tides were caused by a rotating Earth, which everyone knew was ridiculous. Newton so wanted a moving Earth that he confined his whole system to the sun and planets but purposely left out the rest of the universe, which he knew would alter his laws of motion. Olivieri so wanted a moving Earth to conform to society’s wishes that he lied to Pius VII about why Galileo was condemned for heresy. Einstein so wanted the Earth to move that he invented the absurd and inapplicable Special Relativity theory (but when he was forced to follow up with the General Relativity theory, he realized he could not escape a non-moving Earth in the center of the universe). Hubble so wanted a moving Earth and outside the center of the universe that he invented the expanding ‘balloon’ universe, even though he knew it had multiple problems, most of which have not been solved a century later. And so today, Fr. Robinson is so desperate for a moving Earth that his book ignores all the evidence for a non-moving Earth and instead gives his reader exactly one alleged proof for his view, but without alerting the same reader there is an easily demonstrated geocentric alternative that neutralizes his argument. So, if you don’t think someone’s personal convictions concerning the Earth influence their interpretation of the data, you are either naïve or haven’t lived long enough yet. So is the case with radiometry. The volatility of the isotopes is a mere forecast of the volatility of the interpretations given to them.

⁴⁷⁷ William D. Stansfield, *Science of Evolution*, New York: MacMillan Pub. Co. 1977, p. 82.

To begin, it would not be an overstatement to conclude that modern radiometry is about 50% assumptions; about 40% wishful thinking, and only 10% scientific evidence.

- The *scientific evidence*, of course, is the fact that radioactive isotopes decay.
- The *wishful thinking* comes from the secularists doing the analysis on the isotopes who are motivated to find evidence that agrees with their godless view of the world and ignore (or actually throw away) any contrary scientific evidence or any commentary on the evidence afforded by the Bible.
- The *assumptions* concerning radiometry come from the fact that since no one was there when the evolutionist or long-ager purports the universe or Earth came into being, we cannot know certain vital things needed in determining the age of a rock, and thus if one is going to come to an age of 4.5 billion years for the Earth, he must make assumptions concerning isotope decay that agree with his presupposed dating method, but of which he has no way to provide evidence, much less proof.

There are at least five basic assumptions the secular scientist uses when dating a rock:

- 1) He must assume a ratio between the isotope's parent element and its decayed daughter element. Essentially, this is just a guess, but rather than call it a guess (which sounds unscientific) they call it a "model age."
- 2) They must assume the rock, over billions of years, has not been appreciably disturbed by heat or cold or any other physical disturbance.
- 3) They must assume they can interpret the *general* date of the rock. Scientists do not send rock samples off to be dated without including what the discoverer of the rock "interprets" the age to be depending on where he found the rock. But where he found the rock has already been dated by someone previous to him who used the same assumptions (*e.g.*, long-ages, evolution). When the lab sends back the various estimates of the age, the scientist can then

decide what date he prefers for the rock depending on whether he wants the date to coincide with when the rock crystallized or when it cooled; or perhaps when the rock was heated, deformed or altered; or perhaps when the magma melted before the rock formed.

- 4) He must assume the decay rate has never changed, but he has no absolute certainty, only approximate certainty in the face of evidence that certain decay rates have changed slightly or can be slightly changed artificially.
- 5) He must assume there was no cataclysmic event during the formation or life of the rock or its surroundings, which is usually understood as the concept of “uniformitarianism.”

As we can surmise, if any one of these five assumptions is incorrect, then radiometry can tell us nothing about the age of the Earth, much less the universe.

RADIOMETRIC DATING IN GENERAL

For this section, we will use the scientist Fr. Robinson includes in his bibliography, G. Brent Dalrymple. He is one of the leading advocates for the long-age interpretation of decaying isotopes. In his seminal paper on radiometry, Dalrymple reveals precisely who his targets are—those who believe the Bible’s short chronology of the Earth. This is his opening paragraph of his 76-page paper:

“Scientific” creationism, as represented by Morris (1974, 1977), Kofahl and Segraves (1975)* and others is a model for the creation and history of the universe based on a literal interpretation of parts of the book of Genesis. These authors claim that “scientific” creationism is a legitimate scientific theory that explains extant scientific observations about the history of the universe, the Earth, and living things as well as, if not better than, the current theories and concepts of chemistry, physics, biology, geology, and astronomy. Although clearly religious apologetics and not a scientific theory, many of the major tenets of “scientific” creationism can be tested as if they were rational scientific hypotheses. Two of the principal geologic propositions of the creation model are that the Earth is only about 6,000 to 10,000 years old

(Morris, 1974; Kofahl and Seagraves, 1975; Slusher, 1980) and that nearly all of the sedimentary rocks on the Earth were deposited in about one year during a worldwide flood that occurred about 7,000 to 9,000 years ago (Morris and Whitcomb, 1961; Morris, 1974; Kofahl and Seagraves, 1975). These two “hypotheses” are contrary to a vast and consistent body of scientific data and are demonstrably false.⁴⁷⁸

We can see at the outset Dalrymple is not going to give any “scientific” credibility to views opposing his. His consistent practice of putting the word “scientific” in quotes when he is addressing Morris, Kofahl, Seagraves and Slusher, shows he is biased from the beginning of his analysis. Only his “science” has any credibility. Let’s see how this bias develops. On page 1a, Dalrymple shows a chart of what he believes represents the long-ages of the Earth:

Era	Period	Epoch	Estimated Millions of Years Ago		
Cenozoic	Neogene	Quaternary	(Recent)		
			Pleistocene	.01	
			Pliocene	2	
	Paleogene	Tertiary		Miocene	5
				Oligocene	24
				Eocene	38
				Paleocene	55
					63
Mesozoic	Cretaceous		138		
	Jurassic		205		
	Triassic		240		
Paleozoic	Permian		290		
	Carboniferous	Pennsylvanian	330		
		Mississippian	360		
	Devonian		410		
	Silurian		435		
	Ordovician		500		
	Cambrian		570		
Precambrian	No worldwide divisions of the Precambrian have been devised, although various local classifications exist. By definition, the Precambrian embraces the time between the origin of the earth and the beginning of the Cambrian Period.		4550		

⁴⁷⁸ <https://pubs.usgs.gov/of/1986/0110/report.pdf> *Radiometric Dating, Geologic Time, And The Age Of The Earth: A Reply To “Scientific” Creationism,*” by G. Brent Dalrymple, U. S. Geological Survey, Open-File Report 86-110, 1 Menlo Park, CA, Feb 19, 1982, p. 1.

In the note at the bottom of the table, Dalrymple says:

Precambrian: No worldwide divisions of the Precambrian have been devised, although various local classifications exist. By definition, the Precambrian embraces the time between the origin of the earth and the beginning of the Cambrian Period.

Dalrymple's pretext is noted in the fact that although his chart shows "4550 million years" as the beginning of the Earth, he skips over the 4030 million years prior to the Cambrian period that started 570 million years ago. In other words, Dalrymple skips over 89% of Earth's history. Why? Because these years don't show any fossils. The fossils, even from his own recording of history, don't appear until the Cambrian period and don't appear appreciably after the Cambrian period. In scientific parlance, it is called "the Cambrian explosion," since most of the fossils appear in this single 70 million-year time frame. But doesn't that seem odd? If evolution continued at the same rate it first appeared—as even 'uniformitarianism' dictates—then why do almost all of the fossils appear in one tiny part—1.5%—of the multi-billion-year evolutionary theory?

One obvious answer is that something cataclysmic must have happened on Earth during the so-called "Cambrian explosion," sending millions of animals, all over the Earth, to a quick death, and an even quicker burial, and under tremendous pressure, otherwise the fossil would not make an impression in the mud or soil. In fact, such a cataclysm would be the only possible way to explain such a worldwide change in the fossil record. But Dalrymple and his cohorts will have none of that "bible stuff" muddying their waters (*e.g.*, a global flood). Even though the Cambrian explosion screams of a cataclysmic event as the cause, if Dalrymple admits of such a cataclysm, then his theory of uniformitarianism, which is necessary for both his radiometric and sedimentology measurements, must be tossed into the proverbial trashcan.

Next, Dalrymple says:

Figure 1. Simplified geological time scale. The relative order of the eras, periods, and epochs was determined on the basis of stratigraphy and paleontology. The time scale was independently confirmed and

quantified by radiometric dating. After Harbaugh (1974). Ages are based on the new IUGS decay constants.

So Dalrymple is telling us that “stratigraphy and paleontology” were used to determine all the “eras, epochs and periods” of his 4.5-billion-year chart. That is, only after they determine the Earth’s age by these two primary methods (stratigraphy and paleontology) will they then bring in radiometry to verify the age. As Dalrymple notes regarding a study of North American land mammal ages:

Each period of relative time is given a name, usually derived from some locality where the fossils occur. On the basis of decades of careful investigations, vertebrate paleontologists have divided the Cenozoic (see Fig. 1) into some 15-20 “North American Land Mammal Ages”. The relative sequence of these ages was known both from stratigraphy and from the relative stage of evolution of the various fossils, but the exact age in years and amount of time represented by each Mammal Age could only be estimated (though pretty well as it turns out).⁴⁷⁹

So, by their own admission, they use both “stratigraphy” and the theory of “evolution” to determine the general age of the place the fossils were found; and these ages, of course, will always be in the “millions of years.” So once the geochronologist knows the evolutionist/stratigrapher says the fossils are, say, 500-million years old, it will be very easy for him to assume the parent/daughter ratio of the isotope that will come close to a 500-million-year-old specimen. Since he assumes the decay rate is constant, the only significant variable left is the parent/daughter ratio. And since the specimen does not come with a white label declaring the parent/daughter ratio, the ratio must always be calculated based on prior committed assumptions. The only parameter the evolutionist/stratigrapher gave the geochronologist was a specimen they claimed was 500-million years old. Naturally, then, the geochronologist is going to pick a parent/daughter ratio that coincides with 500-million years and then do his measurement of how much decay occurred. Since he already believes in evolution and long-ages, he is not going to use 6000 or less years as the basis for determining the parent/daughter ratio.

⁴⁷⁹ *Radiometric Dating, op. cit.*, p. 22.

Unfortunately, you will not get the details of this procedure from either Dalrymple or his colleagues. Instead, they will make it sound as if, “The time scale was independently confirmed and quantified by radiometric dating....Ages are based on the new IUGS decay constants,”⁴⁸⁰ but he will say nothing about how the parent/daughter ratio was selected, yet they will congratulate themselves on how close, and even more accurate, their radiometric dating is than the broad ages given by stratigraphy and evolution theory.

Here is a case in point. Dalrymple states:

In the early 1960's, two geochronologists and two vertebrate paleontologists at the University of California at Berkeley did an experiment to determine whether the relative sequence of North American Land Mammal Ages was correct and to quantify the scale. The results are summarized in Table 2,⁴⁸¹ and their significance nicely expressed by the authors in their classic paper (Evernden and others, 1964, p. 166).

“Of all the samples dated that met the mineralogic and geologic standards outlined above, not one has given a date that is in serious conflict with the associated vertebrate paleontologic data. On the contrary, in almost every case, they have given support to the proposed time-stratigraphic position of faunal aggregates and mammal ages.”

and (p.145)

“The K/A ages and the Mammal Age designations are in essentially perfect agreement, thus substantiating the usefulness of the K/A technique throughout the Tertiary and supporting the conclusion that the defined Mammal Ages have true evolutionary significance.”

⁴⁸⁰ *Radiometric Dating, op. cit.*, p. 1a.

⁴⁸¹ Dalrymple adds: “Table 2. Summary of the K-Ar dates of the North American Land Mammal Ages for the Cenozoic. Data from Evernden and others (1964). Data include ages on only those units whose relative order was known before the dating experiment was done. The ages were calculated with the old ⁴⁰K constants.”

and (p.166)

“Vertebrate paleontologists have relied upon ‘stage-of-evolution’ as the criterion for determining the chronologic relationships of faunas. Before the establishment of physical dates, evolutionary progression was the best method for dating fossiliferous strata. The physical dates presented in this paper (table 6) demonstrate that temporal position of genera and species of fossil mammals in their accepted phylogenies is accurate at Mammal Age degree of refinement.”⁴⁸²

So, although we will assume they used the standard decay rates, we see not a word about the parent/daughter ratio was chosen to determine their ages. But the parent/daughter ratio is the most important factor determining whether a specimen is 600 million years old or 6000 years old. It is very similar to the instance we saw earlier in determining the age of the universe from redshift values. The Big Bang cosmologists use the redshift formula $T = T_0 (1 + z)^{-3/2}$ to calculate the age of the universe. T_0 is the current age of the universe and z is the redshift factor of the object. Let’s say NASA finds a distant object in the sky and assigns it a z -factor of 1. NASA will then plug in the value for T_0 as 13.7 billion years and will compute a value for T , which is understood as the age of the universe when the radiation emission of the distant celestial object took place. In the case where $z = 1$, then $T = 4.844$ billion years, the assumed age for the Earth. But let’s say we assume T_0 is 6,000 years instead of 13.7 billion. In this case, where $z = 1$, then $T = 2,121$ years. In other words, when an astronomer sees a star with a z -factor of 1, he might just as well assume the universe was 2,121 years old rather than 13.7 billion years old, since the z -factor is only a function of one’s assumption regarding the beginning of the universe. It is more or less the same with the parent/daughter ratio. The age of the specimen depends almost entirely on the ratio used.

Before we move on, let’s say a word about radioactive decay rates. Although it is reasonable to assume the geochronologist’s dependence on a stable decay rate is justified, by the same token, when stable rates for other phenomena are advanced by creationists against evolution or long-ages, it

⁴⁸² *Radiometric Dating, op. cit.*, pp. 22-24.

is the latter who cry foul and opt for non-stable rates. For example, in 1973, Thomas Barnes showed evidence the Earth's magnetic field is decaying. He used the observed decay rate over a number of years and assumed it was constant. He then ran the math back in time and computed that prior to about 10,000 BC the Earth's magnetic field would have been too strong for biological life. Barnes explained this decay on the basis that the electrical current producing the magnetic field slowly loses energy because of the ohm resistance of the core, which is called "free decay." The Earth's observed decay rate is precisely what would be expected from the electrical properties of the materials most likely to be in the Earth's core.⁴⁸³ The only way long-agers can answer this is to claim the magnetic decay rate is not constant; rather, it fluctuates in intensity and direction, even though there is little evidence for such.⁴⁸⁴

A SHORT LIFE FOR EARTH AND ITS GROWING POPULATION

Another example, even more astounding, is when we use the current growth-rate of the human population and work backwards in time until a single pair of humans is reached. Although there will certainly be fluctuations in the general population from year to year due to war, disease and natural disasters, since these detriments continually occur from year to year, there should be a general constant for the increase of the population over a general period of time, give or take a few hundred or even a few thousand years for unknown factors. When population statistics were kept

⁴⁸³ Barnes, T. G. "Decay of the earth's magnetic moment and the geochronological implications," *Creation Research Society Quarterly* 8 (June 1971) 24-29; Barnes, T. G. "Electromagnetics of the earth's field and evaluation of electric conductivity, current, and Joule heating of the earth's core," *Creation Research Society Quarterly* 9 (March 1973) 222-230; Stacey, F. D. "Electrical resistivity of the earth's core," *Earth and Planetary Science Letters* 3 (1967) 204-206; Inglis, D. R. "Dynamo theory of the earth's varying magnetic field," *Reviews of Modern Physics* 53 (July 1981) 481-496; Lanzerotti, L. J., et al. "Measurements of the large-scale direct-current earth potential and possible implications for the geomagnetic dynamo," *Science* 229 (5 July 1986) 47-49; Merrill, R. T. & M. W. McElhinney, *The Earth's Magnetic Field*, (London: Academic Press, 1983) 101-106.

⁴⁸⁴ <http://www.icr.org/article/earths-magnetic-field-young>; "The Earth's Magnetic Field Is Young," D. Russell Humphreys, Aug. 1, 1993. "...calculations show that the total energy in the field has decreased by about 14% since 1829."

with some rigor, it was known by 1650 the world population was about 600 million. By 1850, the population was 1.2 billion; and in 1950 it reached 2.4 billion.⁴⁸⁵ In statistical analysis, the rate is calculated on the basis of how long it takes the population to double, and it is assigned the value T . Therefore, between 1850 and 1950 the population doubled in 100 years, wherein $T = 100$ years.

The Bible itself gives an indication of how the general population grew, and at one point it was much higher than $T = 100$ years. In Numbers 1:32-33, the census revealed 603,550 Israelite men left Egypt. This number was low considering the census did not count women, children, or the Levites.⁴⁸⁶ At the time Jacob came into Egypt 430 years earlier, he had a family of 70 people, including males, females and children.⁴⁸⁷ If we add, on average, one wife and one child to the 603,550 men, we have about 1.8 million people who came out of Egypt. Starting from 70 people, we would need to double the population 14.5 times in order to reach 1.8 million people over 430 years. This means $T = 29.65$ years, that is, the population doubled approximately every 30 years. Even if we excluded women and children and kept the population of Israel at 603,550 men over 430 years, it would have taken only 13.5 years, with the population doubling every 31.85 years or approximately every 32 years.

Why was the population of Israel flourishing so high with a T value of about 30-32 years? Probably because Israel was living in the land of Goshen, the best land Egypt had to offer,⁴⁸⁸ and away from the Egyptians at a time when we read of no wars, disease or cataclysms. The only obstacle was seven years of famine, but Joseph, the governor of Egypt, took care of his family so that they lacked for nothing.

Since we are not in the pristine conditions of the Israelites in Egypt, and we know the world population doubled in 100 years between 1850 and 1950, let's use a conservative T -value of 155 years, that is, the population

⁴⁸⁵ Warren Weaver, "People, Energy, and Food," *Scientific Monthly*, Vol. 78, June 1954, p. 359.

⁴⁸⁶ Gn 46:7, 27.

⁴⁸⁷ Cf. Ex 12:40; Gn 46:7, 27.

⁴⁸⁸ Gn 47:6: "The land of Egypt is before you; settle your father and your brothers in the best of the land; let them dwell in the land of Goshen."

doubles every 155 years. According to the Masoretic Text's chronologies of Genesis 5 and 11, Noah's flood began in 2,529 BC.⁴⁸⁹ From the year 2,529 BC to the year 2,018 AD yields a total of 4,548 years, which yields 29.34 times the world population doubled since the Flood. Starting from 8 people in the ark to the current population of 7.6 billion,⁴⁹⁰ on average the world population has doubled every 155 years; or doubled a total of 29.34 times.

Here's the problem for the evolutionist/long-ager. Any value of T between 32 or 155 (or even 7,500) is not going to coincide with their claims that *Homo sapiens* arrived on Earth between 200,000 and 300,000 BCE. According to evolution/long-age theory...

Current data suggest that modern humans evolved from archaic humans primarily in East Africa. A 195,000-year-old fossil from the Omo 1 site in Ethiopia shows the beginnings of the skull changes that we associate with modern people, including a rounded skull case and possibly a projecting chin. A 160,000-year-old skull from the Herto site in the Middle Awash area of Ethiopia also seems to be at the early stages of this transition. It had the rounded skull case but retained the large brow ridges of archaic humans. Somewhat more advanced transitional forms have been found at Laetoli in Tanzania dating to about 120,000 years ago. By 115,000 years ago, early modern humans had expanded their range to South Africa and into Southwest Asia (Israel) shortly after 100,000 years ago. There is no reliable evidence of modern humans elsewhere in the Old World until 60,000-40,000 years ago, during a short temperate period in the midst of the last ice age.⁴⁹¹

According to the Smithsonian Institute project on human origins...

The species that you and all other living human beings on this planet belong to is *Homo sapiens*. During a time of dramatic climate change 300,000 years ago, *Homo sapiens* evolved in Africa. Like other early

⁴⁸⁹ The LXX has 3,044 BC, while the Samaritan Pentateuch has 2,954 BC. All three use a 430-year period for Israel in Egypt (not Ussher's 215-year period); a 931 BC date for the division of Solomon's kingdom; and a 480-year period between the departure of Israel from Egypt until the 4th year of Solomon's reign (1 Kg 6:1).

⁴⁹⁰ <http://www.worldometers.info/world-population/>

⁴⁹¹ https://www2.palomar.edu/anthro/homo2/mod_homo_4.htm, titled "Early Modern *Homo Sapiens*."

humans that were living at this time, they gathered and hunted food, and evolved behaviors that helped them respond to the challenges of survival in unstable environments.⁴⁹²

Using evolution's time chronology for the arrival of *homo sapiens*, let's say there were two *homo sapiens*, male and female, in 300,000 BCE, and we doubled the population at the above conservative rate, that is, every 155 years ($T = 155$ years). By the time we reach 293,800 BCE the population of Earth would be over two trillion people, which is obviously too much for the Earth to hold.

- At $T = 2,000$ years, we would have two trillion people in the year 220,000 BCE, obviously still too many people for the Earth to hold.
- At $T = 5000$ years, we would have two trillion people in the year 100,000 BCE.
- At $T = 7500$ years, we would have two trillion people at 1 AD.

As we can see, even with an unreasonably high T value, we still aren't close to the actual population on Earth (7.6 billion). These facts and figures alone should tell us the whole evolutionary/long-age theory is totally out of whack. To confirm our finding's, let's use a later date, one suggested by the geochronologist, G. Brent Dalrymple, who writes:

¹⁴C dating has been used to....determine the chronology of development and the migration patterns of early man. For example, ¹⁴C dating and other methods have shown that *Homo sapiens* (anatomically modern man) existed in Africa during the Middle Stone Age more than 50,000 and probably some 80,000 to 90,000 years ago (Vogel and Beaumont, 1972; Protsch, 1975). From Africa, *Homo sapiens* migrated to other continents, arriving in Europe, Asia, and Australia about 32,000 to 34,000 years ago. ¹⁴C dates on sites in southern California and in Central and South America show that *Homo sapiens* arrived on the American continent about 28,000 to 30,000 years ago from Asia via the Bering Strait, where a land bridge was formed when sea level was lowered during a period of glaciation (Protsch, 1979). Thus, ¹⁴C dating, in concert with other techniques, has not only provided archeologists and anthropologists with a chronology for the emergence of modern

⁴⁹² <http://humanorigins.si.edu/evidence/human-fossils/species/homo-sapiens>

man, but has also proved invaluable in efforts to trace the first migration of our ancestors to the continents of the world.⁴⁹³

Practically speaking, the above figures show us that whether we start from 90,000 or 32,000 years ago, we would have a tremendous amount of people living on Earth today, and many more burial sites to hold the skeletons of the dead. So the obvious question is: if, as the evolutionists and long-agers tell us, there were no cataclysms or major catastrophes on Earth during this time and everything proceeded in a uniform manner as it supposedly did for billions of years prior, where did all the *homo sapiens* go? Where are all their skeletons? Where are all the *homo erectus* or hominid skeletons? Why is the present population of *homo sapiens* only 7.6 billion if, as we noted from the statistics, the population is supposed to double every 100 years or so? The Earth should be one massive graveyard if all the people that should have come and gone in 90,000 years had left remains of themselves. Moreover, the 90,000 years proposed by the ¹⁴C evolutionists/long-agers is in conflict with the Smithsonian study that says *homo sapiens* arrived on Earth about 300,000 years ago, which figure makes the mystery of the missing *homo sapiens* that much worse.

Mathematically speaking, if we used a modest $T = 155$ years for Dalrymple's estimates, and a modest two-person population of male and female starting in Africa, in 60,000 years (that is, 90,000 minus 30,000) there should be 10^{114} human beings to be accounted for in "southern California, and in Central and South America" today, either alive or buried. Yes, you read that correctly, since by the doubling-rule if one doubles the number "2" 380 times and each doubling is separated by 155 years for 60,000 years, you arrive at 10^{114} people, which is the number "1" with 114 zeros after it. We wouldn't be able to fit that many people on the eight planets of our solar system, much less Earth.

So let's say for the sake of illustration that conditions on Earth were so bad 60,000 years ago we had to use a $T = 500$ years for doubling the Earth's population. Even in that case, in 60,000 years we would have a population of one thousand decillion or 10^{36} people who would have come and gone

⁴⁹³ "Radiometric Dating, Geologic Time, And The Age Of The Earth: A Reply To 'Scientific' Creationism," *U. S. Geological Survey*, 1982, p. 41.

on Earth. This is assuming, of course, that it took 500 years for the first male and female African couple of *homo sapiens* to have two children in order to double their population to four; and another 500 years for the four offspring to double their population to eight; and another 500 years for the eight offspring to double their population to sixteen, and so on. Obviously, a T value of 500 years is way too high, especially since it would require the *homo sapiens* to live about 500 years each, but even then, with no cataclysms or catastrophes to account for (so says the long-ager), in 60,000 years it produces 10^{36} people.

So something is amiss with the both the geochronology and the anthropochronology of the evolutionary and long-age schema. It becomes quite obvious that an intelligent designer understood if human beings existed too long on Earth, the population would soon outstrip its environment. Thus it is certainly reasonable, both mathematically and practically, to accept a worldwide flood occurring some 4500 years ago as the terminus for the old world and the beginning of the new,⁴⁹⁴ for in that short time (2500 BC to the present) the math shows the world would reach its present 7.6 billion people. Another hundred years and it will be close to 16 billion people; and 32 billion a hundred years afterward.

No wonder St. Paul tells us in Rm 9:28: “For he will finish the work, and cut it short in righteousness: because a short work will the Lord make upon the earth” (KJV). No wonder the Malthusians are so worried that in the not too distant future the Earth won’t be able to sustain its burgeoning population. They did the math. But their godless and selfish solution is to limit the population by abortion and birth control, and/or kill-off the ‘useless eaters.’ God’s solution is a short life for the Earth that may end very soon.

⁴⁹⁴ If we use the Masoretic text, and a strict chronology, of Gn 5 & 11, the creation of Adam occurs at 4,185 BC and the Flood at 2,529 BC, leaving 1,656 years from Adam to the Flood. If we use $T = 50$ years (nearer to what it was for Israel in the land of Goshen for 430 years), we have a population of about 11 billion on Earth at the time of the Great Flood. The Fathers, a little less strict on the Genesis chronologies, have an average of 5200 BC for the creation of Adam (see *The Church Fathers on the Dating of the Earth* in this book) and the Flood occurring about 2200 years later. If $T = 100$, there is a population of about 8 million at the Flood. If $T = 75$, the population is 2 billion.

STRATIGRAPHY AND THE AGE OF THE EARTH

From the theories of James Hutton (1726–1797) and Charles Lyell (1797–1895), it was assumed that the rate of erosion and sedimentation in past time was the same as it is today (another example of “uniformitarianism”). Hence, the age of stratum was calculated from current deposit rates of sediment. There was one problem for Hutton and Lyell, however: the sedimentation rate was hypothetical, since all the assumed stages of geological stratum were never found together in one geological formation. In other words, if the ideal geologic column should have a dozen layers of stratum, only a percentage of those layers would be found at any given place on Earth. In spite of this lack of evidence, the method they presumed to employ to date the rocks of the Cambrian period to the present time was based on the principle of superposition, that is, lower stratum were always older than higher stratum.

Concurrent with these theories were the studies of Johannes Walther (1860–1937), which told a different story. Walther studied sedimentary deposits that advanced from the land toward the ocean. To acquire a test sample of the deposit, Walther drilled out a vertical cylinder midway in the advancement. He found the various layers or facies were in the same order as the leading edge of the advancement into the ocean. He was forced to conclude the facies were being laid side-by-side. Walther did the same testing in the bay of Naples. He found after drilling out a vertical column of sediment it had the same sequence of facies arrangement as the sediments laying horizontally. He concluded, quite logically, the classical theory, *i.e.*, facies on top formed later than the facies on the bottom, was wrong. Instead, he found the facies were being formed simultaneously and being deposited horizontally, not vertically.

This phenomenon was confirmed in the observance of coastal marine floods. In the 1970’s and 1980’s several cylindrical holes bored in the bottom of the Pacific Ocean also showed the sediments were laid down horizontally. Samples from the Grand Canyon showed the same phenomenon.

In 1965, the American geologist Edwin D. McKee (1906–1984) found the same horizontal sedimentation occurring as a result of a river in Colorado

overflowing its banks from a torrential rain. The stratified deposits, which reached a thickness of twelve feet in forty-eight hours, showed particle sorting and bedding planes. Classical theory would be forced to interpret such sedimentation as a series of interruptions wherein one stratum must have hardened before the next layer was placed on top of it, but this would be impossible within the space of forty-eight hours.

Taking McKee's observations, French geologist Guy Berthault⁴⁹⁵ devised laboratory experiments to observe how particles settled in both dry and wet conditions. In both cases, sand particles of differing size sorted themselves into micro-strata according to their sizes with the larger ones forming at the bottom and the smaller ones at the top. This showed that strata would form by particle sorting, irrespective of the speed of sedimentation. It was the exact opposite of the classical theory, believed for more than two centuries, that strata were formed by layers forming one on top of the other. The results of these experiments were registered with the French Academy of Sciences.

Pierre Y. Julian⁴⁹⁶ of Colorado State University performed larger scale experiments and confirmed the above results. Different sized particles of sand were poured into water circulating in a long flume. Under all kinds of conditions, it was again found the mechanical nature of stratification was such that particles segregated according to their size when transported by water currents of variable speeds, and sedimentation would form both horizontally and vertically.

Repeated experiments by different groups gave the same results. It was discovered that various kinds of strata would form depending directly on the speed of the current. This finding discounts the idea that similar strata found in various parts of the world would be of the same age. It shows, rather, similar stratification is due simply to identical environmental conditions. Although it was understood superposition would occur in motionless water, nevertheless, motionless water would not have been the case for any area of the world. In fact, it could be said the classical theory

⁴⁹⁵ <https://creation.com/guy-berthault>; <https://kgov.com/guy-berthault-simultaneous-geological-strata-deposition>

⁴⁹⁶ <https://www.engr.colostate.edu/~pierre/>

of stratigraphy has failed to take into account any of the water currents in the world's oceans, seas and rivers. Various water currents around the world would make stratification non-continuous, the opposite of present geological column theory.

Experiments were also performed on dry particulates. It was found as various sizes of particles were dropped vertically on a target, stratifications were formed parallel to the slope, exceeding an angle of 30 degrees, which again contradicted the prevailing idea in geology that strata are formed in horizontal layers. Hence sloping strata could simply be the result of sediments forming on an inclined plane.

With regard to fossils, organisms would be swept along laterally (the same as the sediments of the above experiments) and would be deposited successively in sediments where they would become fossilized. As with sediments, the position of the fossil would provide no indication of age. In this case, fossils in higher strata could be older than fossils in lower strata.

We must also add that the above type of fossilization process accounts for the many fossils found today, since the burial of the fossils occurred very quickly, before the organic specimen had a chance to decompose. Conversely, evolutionary theory has the impossible task of explaining how a fossil could be formed in strata that takes thousands or millions of years to cover the organic specimen. Surely the specimen would have completely decomposed, if not eaten by other specimens first, before it had a chance to be fossilized. Some evolutionists attempt to explain the anomaly by hypothesizing that highly alkaline water allowed the specimens to be preserved, but this is surely a desperate attempt at an answer, especially since highly alkaline solutions are corrosive.

In the 1994 publication, *Grand Canyon*, geologist Stephen Austin⁴⁹⁷ referred to two very important articles on sedimentation. The first was to the work of sedimentologist D. M. Rubin⁴⁹⁸ on the relation between hydraulic conditions and stratified structures in San Francisco Bay, which was published in *Sedimentary Geology*, and the second was to an article in

⁴⁹⁷ <http://www.sfasu.edu/academics/colleges/sciences-math/geology>

⁴⁹⁸ <http://www.sciencemag.org/author/d-m-rubin>

Sedimentary Petrology, which summarized a series of thirty-nine flume experiments on the same relations between hydraulics and stratification. Rubín summarized these relations diagrammatically showing: (a) speed of current; (b) depth of water; and (c) size of sedimentary particles, which would have been necessary to form the different structures found in the sedimentary deposits. Austin had discovered the same structures in the sedimentary rocks in the Grand Canyon as those in Rubín's diagram. The 800-kilometer sample of the Grand Canyon, known as the Tonto Group, is comprised of three facies which extend east to west. The upper facies is made of limestone; the middle facies, clay; and the lower facies, sandstone. As predicted by Walther's law, the same sequence of facies is found side-by-side as those from top to bottom.

From this evidence, Austin calculated the hydraulic conditions which would have been necessary when the Tonto group of the Grand Canyon was deposited. The condition was a velocity of water current in the sample of two meters per second, causing the water to rise nearly 2,000 meters above current ocean level, which could have been accomplished in as little as two days. Not surprisingly, the speed of current necessary to build the Tonto group corresponded directly with those recorded in the thirty-nine flume experiments written up in *Sedimentary Petrology*. The advancing water current travels at different velocities. In a fast-moving current, heavier or coarser particles would deposit before lighter particles. A rapid speed of the current would have occurred as the water level was rising. As the water level became higher, the speed of the current decreased, and at that point the sediments deposited would have been proportionately finer, yet all of the particles would have been deposited at or near the same time, resulting in the sandstone-clay-limestone sequence. During the point at which the ocean arrived at its maximum level, there would have been little or no current. The finest particles would deposit at a rate of about 2 centimeters per day, showing superposition does, indeed, occur. But this process would be interrupted when, as the waters began to subside, the current reappeared. In addition, when the water began to recede, it would have created velocities sufficient to erode deep valleys into the lightly-packed sediments deposited during the initial stratification.

Conversely, evolutionists believe the Tonto Group of the Grand Canyon occurred during the so-called Cambrian period, since it contains many fossils associated with the “Cambrian explosion.” The Cambrian period is said to have lasted 70 million years. Obviously, if the above data from Austin and Berthault is correct, it would categorically deny such a long time period to the Tonto Group. In fact, the experiments show the Tonto group could have been formed in as little as days or weeks. Since the assumptions of stratification used by evolutionists have never been verified experimentally, there are no objections they can raise. As a result, the whole of their geologic column, including the multi-millions of years separating the Cambrian period from such periods as the Jurassic or Pleistocene, should be discarded until they can provide experimental results that prove their assumptions.⁴⁹⁹

These new discoveries on how sediments are formed has a direct bearing on the age of the fossils found in the sediments. Logically, if the sediments are thousands of years old instead of millions of years, then the fossils can only be thousands of years old. As it stands, modern science has two ways of estimating the age of the rock in which a fossil impression is laid. The first is by determining the age of the layer of the geologic column in which the fossil is found. If the layer is X years old, it is assumed the fossil is X years old as well. Of course, if the dating of the geologic column is wrong, then the dating of the fossil contained in it will also be wrong. Since the above evidence shows modern theory on the age of the geologic column is unproven and most likely fallacious, then the geologic column cannot serve as a basis for the age of a fossil.

Secular evolutionists plead the contrary when faced with this evidence. For example, Dalrymple says,

A favorite claim of creation “scientists” is that geologists have somehow devised the geologic time-scale and an ancient age for the Earth in order to provide adequate time for the biologists’ theory of

⁴⁹⁹ The information contained herein was taken from the material published by the Geological Society of France, 1993, and Julien Lan and Guy Berthault, “Experiments on stratification of heterogeneous sand mixtures,” *CEN Technical Journal* 8 (1):3750, 1994; Guy Berthault, “Experiments on lamination of sediments,” *CEN Technical Journal* 3:2529, 1988.

evolution (for example, Morris, 1974; Slusher, 1980). The idea that the theory of evolution and the age of the Earth are the result of a conspiracy is absurd. I have no reason whatsoever to want the age of the Earth to be any more or less than it happens to be. I would take great delight in proving that the Earth is only 10,000 years old if it were possible to do so. As for the biologists, they are entirely on their own they will have to make do with whatever we geologists are able to discover about the age and history of the Earth. If there is a conspiracy of “evolutionists,” neither I nor my colleagues were invited to join.⁵⁰⁰

Despite what Dalrymple claims, it is not “absurd” that evolutionists conspire against creationists, and Dalrymple himself has every reason to interpret the data in line with evolution, otherwise he would lose his job with the US Geological Survey. If Dalrymple doesn’t know this or accept it, then he lives in a dream world of his own making.

⁵⁰⁰ Dalrymple, *op. cit.*, p. 4.

RADIOMETRIC DATING: ROUND TWO

Dalrymple says the following:

The ages of meteorites and rocks from the earth and moon are measured by radiometric dating, a family of techniques based on the spontaneous decay of long-lived naturally occurring radioactive isotopes. These radioactive parent isotopes decay to stable daughter isotopes at rates that can be measured experimentally and remain effectively constant over time regardless of physical or chemical conditions. Each parent-daughter pair constitutes an independent clock in which atoms of the parent are transformed at a constant and predictable rate into atoms of its daughter. The amounts of parent and daughter isotopes in a rock, along with the known rate of decay, provides the information necessary to determine the time that has elapsed since the rock formed.⁵⁰¹

Below is Dalrymple's table of the parent-daughter isotopes, their calculated half-life, and their known decay constants used to determine the ages of rocks and minerals.

• K^{40} to Ar^{40}	1.25×10^{-11}
• Rb^{87} to Sr^{87}	4.88×10^{-10}
• Sm^{147} to Nd^{143}	1.06×10^{-11}
• $L^{176}u$ to Hf^{176}	3.50×10^{-11}
• Re^{187} to Os^{187}	4.30×10^{-10}
• Th^{232} to Pb^{208}	1.40×10^{-10}
• U^{235} to Pb^{207}	7.04×10^{-8}
• U^{238} to Pb^{206}	4.47×10^{-9}

Dalrymple also states that of the 339 isotopes of 84 elements found in nature, 269 are stable and 70 are radioactive. Eighteen of the radioactive isotopes have long half-lives and he believes they have survived since the elements of the solar system were created in the billion-year evolution of

⁵⁰¹ *Principle Parent and Daughter Isotopes: Used to Determine the Ages of Rocks and Minerals*, p. 79.

the universe. As such, the long-lived radioactive nuclides are the basis for radiometric dating.⁵⁰²

Radioactive dating uses the following formula to calculate the ages:

$$N_t = N_0 e^{-\lambda t} \quad (1)$$

...where N_t represents the number of radioactive atoms present at time t ; N_0 is the number of radioactive atoms originally present; e is the base of natural logarithms (about 2.718); and λ is a constant (the *decay* constant) specific to the element. The scientist supposes at the time of formation of a rock, P_0 atoms of a parent element and D_0 atoms of its daughter are present. He also supposes the rock neither gives nor receives additional parent or daughter atoms; and today atoms of the parent element and D_t atoms of the daughter element are present. Thus he will know the extra daughter atoms present must come from decay of the parent. So he concludes:

$$D_t = D_0 + P_0 - P_t \quad (2)$$

From equation (1) he gets:

$$P_t = P_0 e^{-\lambda t} \quad (3)$$

where t is now the age of the rock. Combining (2) and (3) gives

$$P_t = (P_t + D_t - D_0) e^{-\lambda t} \quad (4)^{503}$$

Regarding the parent/daughter ratio, Dalrymple claims:

As it stands, equation [$P_t = P_0 e^{-\lambda t}$] is not very useful for radiometric dating because we cannot determine the original number of parent atoms, P_0 . There is, however, an easy solution to this problem. In any closed system, the sum of the number of parent atoms left, P_t , and the

⁵⁰² *Ibid.*, p. 80.

⁵⁰³ <https://pubs.usgs.gov/of/1986/0110/report.pdf> *Radiometric Dating, Geologic Time, And The Age Of The Earth: A Reply To "Scientific" Creationism,* by G. Brent Dalrymple, U. S. Geological Survey, Open-File Report 86-110, Feb 19, 1982, p. 4.

number of daughter atoms formed, D_t , must equal the original number of parent atoms, P_0 .

If the rock to be dated contained none of the daughter isotope at the time of formation and the rock remained closed to gain or loss of parent and daughter, then at any later time the age of the rock could be found from equation (10), $t = 1/\lambda \log_e (D_t/P_t + 1)$ after measuring D_t , and P_t in the laboratory. If the rock incorporated some of the daughter isotope at the time of formation, then we would have to subtract the amount of this initial daughter, D_0 , before we could calculate the correct age $t = 1/\lambda \log_e (D_t - D_0/P_t + 1)$ where D_t is now the total number of atoms of the daughter present. Although at first glance it may seem that the requirement of knowing D_0 is a formidable limitation to the accuracy of radiometric dating, for the principal methods, the quantity D_0 is either zero or negligible or is not required in the age calculation.⁵⁰⁴

So according to Dalrymple, knowing the number of original daughter atoms when the rock was formed is not necessary or consequential. That supposition, of course, is highly debatable. But even then his supposition doesn't relieve him of knowing the ratio of D_0 to D_t , either at formation or at the present, and it goes without saying that the D ratio relates directly to the ratio of P_0 to P_t . Either way he tries to slice it, Dalrymple is either missing or uncertain of vital information about the rock in order to determine its age.

Dalrymple also confined his laboratory to a "closed system." Yet he notes elsewhere:

Some methods work only on closed systems, whereas others work on open systems. A closed system is one in which neither matter nor energy enters or leaves. A system that is not closed is an open system. A "system" may be of any size, including very small (like a mineral grain), or very large (like the entire universe). For radiometric dating the system, usually a rock or some specific mineral grains, need only be closed to the parent and daughter isotopes.⁵⁰⁵

⁵⁰⁴ *Ibid.*, pp. 9-10. Also in *Principle Parent and Daughter Isotopes: Used to Determine the Ages of Rocks and Minerals*, pp. 84-86.

⁵⁰⁵ Dalrymple, *Radiometric Dating*, pp. 17, 19.

But whether the system is, indeed, closed to parent and daughter isotopes over millions of years is the question that Dalrymple cannot answer since he does not know what happened in the past. Logic dictates that if enough of a sample of an isotope came together in the past so that Dalrymple could examine it at the present time, who can say whether that particular sample was not added to or subtracted from in the past, sometime after it was originally formed? If it can form a sample at X years, it can add or subtract to that sample at 2X, 3X or more years.

K-AR (POTASSIUM-ARGON) METHOD

Those favoring long-age interpretation claim that K-Ar is the one decay scheme that can be used with little or no concern for the initial presence of the daughter isotope, based on the fact ^{40}Ar is an inert gas that does not combine chemically with any other element and so escapes easily from rocks when they are heated.

At the same time, however, they admit all radiometric methods, including the K-Ar method, does not work on all rocks and minerals under all geologic conditions. It is said to work particularly well on igneous rocks that have not been heated significantly since their formation. But, of course, how would they know if an igneous rock was heated or not before they examined it? Here they plead “uniformitarianism” so that excessive heat is eliminated from the scenario.

They also admit K-Ar it does not work on most sedimentary rocks because these rocks are composed of debris from older rocks. It also does not work on many metamorphic rocks because rocks of this type formed from other rocks under much heat and pressure. They conclude that the K-Ar method is of limited use for the dating of meteorites, lunar rocks, or the oldest rocks from the earth due to its susceptibility to resetting by later heating.⁵⁰⁶

As it stands, there are an inordinate amount of caveats in using any K-Ar dating method due to external heat factors. Furthermore, ^{40}K breaks down into 88.8% ^{40}Ca and 11.2% ^{40}Ar . Although one could date rocks by calculating from the ^{40}Ca method, scientists realize they do not know how

⁵⁰⁶ Dalrymple, *Radiometric Dating*, pp. 20-22.

much ^{40}Ca was originally present. Instead, they date according to ^{40}Ar , assuming that, when igneous rock melts and then hardens, the ^{40}K decay to ^{40}Ar begins again. But the problem is: (1) there is no way to know that all of the ^{40}Ar escaped when the rock melted; (2) there is always an amount of air-Argon remaining in the rock when it hardens, especially since air contains 1% Argon.

Decades ago, Henry Morris pointed out this strange anomaly in K-Ar dating:

2. The Hawaiian basalts: Still another study on Hawaiian basalts obtained seven “ages” of these basalts ranging all the way from zero years to 3.34 million years. The authors, by an obviously unorthodox application of statistical reasoning, felt justified in recording the “age” of these basalts as 250,000 years.⁵⁰⁷

Dalrymple answers this wild result as follows:

The data to which Morris refers were published by Evernden and others (1964), but include samples from different islands of different age! The age of 3.34 million years is from the Napali Formation on the Island of Kauai and is consistent with other ages on this formation (McDougall, 1964, 1979). The approximate age of 250,000 years was the mean of the results from the four samples from the Island of Hawaii. Contrary to Morris’ concerns, nothing is amiss with these data and the statistical reasoning used by Evernden and his colleagues is perfectly rational and orthodox.⁵⁰⁸

Apparently, Dalrymple doesn’t understand the discrepancy, or he is just feigning as if the results don’t yield quite a devastating anomaly. Since seven measurements of the same sample range in K-Ar calculated age from 0 years to 3.34 million years, we could possibly divide the results up as: (1) 3.34 million; (2) 2.24 million; (3) 1.24 million; (4) 0.24 million; (5) 0.024 million; (6) 0.0024 million; (7) 0.000 million. Anyone in their right mind would realize such a huge disparity in the results means the K-Ar test

⁵⁰⁷ Morris, H. M., 1974, *Scientific Creationism* (Public School Edition): San Diego, Creation-Life Publishers, p. 147.

⁵⁰⁸ Dalrymple, *Radiometric Dating*, p. 27.

for age is complete and utter nonsense. That the authors would try to cover up this exorbitant disparity by passing off “250,000” years as a “mean” just shows how desperate they are.

We also notice Dalrymple does not designate the K-Ar test as “not geologically meaningful” as he did when Morris remarked about another study in which, “Similar modern rocks formed in 1801 near Hualalei, Hawaii, were found to give potassium-argon ages ranging from 160 million years to 3 billion years.”⁵⁰⁹ In other words, the rocks tested were known to be about 153 years old (that is, 1964 – 1801 = 153 years old) but K-Ar readings showed them to be 160 million to 3 billion years old. In this case, Dalrymple argues:

Funkhouser and Naughton were quite careful to point out that the apparent “ages” they measured were not geologically meaningful. Quite simply, xenoliths are one of the types of rocks that cannot be dated by K-Ar techniques. Funkhouser and Naughton were able to determine that the excess gas resides primarily in fluid bubbles in the minerals of the xenoliths, where it cannot escape upon reaching the surface. Studies such as the one by Funkhouser and Naughton (1968) are done to determine which materials are suitable for dating and which are not, and to determine the cause of sometimes strange results.⁵¹⁰

So in this case, the K-Ar results were so wild the team discarded them and blamed the results on the xenoliths, yet in the 1964 test, the Napali Formation on the Island of Kauai noted two paragraphs above, there were no xenoliths or other causes to blame, yet to Dalrymple these highly discrepant results are apparently “geologically meaningful” and the seven different results are reduced to a “mean” of 250,000 years is, in Dalrymple’s mind, completely justified. To us it appears from these two samples alone that Dalrymple is oblivious to the total bias he exhibits in his interpretation of the data.

⁵⁰⁹ Morris, H. M., 1974, *Scientific Creationism* (Public School Edition): San Diego, Creation-Life Publishers, p. H7.

⁵¹⁰ Dalrymple, *Radiometric Dating*, pp. 26-27.

Knowing these anomalies in the Potassium-Argon method, scientists tried to solve the problem by the ^{40}Ar - ^{39}Ar method. This method subjects the rock to a nuclear reactor for several hours. The nuclear reactor emits a large number of neutrons, which stimulates ^{39}K to decay into ^{39}Ar . The rock is then heated to release both ^{40}Ar and ^{39}Ar (representing the Potassium). The ratio is measured to determine the amount of ^{40}K originally present. But the problem is, if the rock has experienced high temperatures during any part of its formation it will give a null result to the dating. As noted by Russell Humphreys:

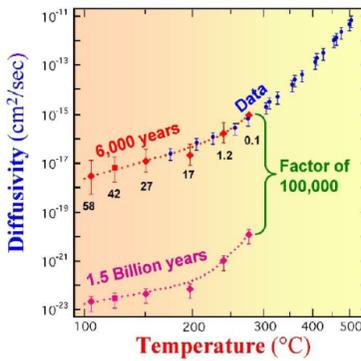
The answer relates to the fact that not only helium, but also argon, can leak from minerals. The hotter the minerals, the faster the leaks. Feldspar, a common mineral in the granitic rock, contains a lot of potassium, about 0.01% of which is the radioactive isotope potassium-40. Today it decays very slowly into the stable isotope argon-40. Comparing the two isotopes and assuming today's rate of decay is the basis for the familiar 'potassium-argon' dating method. Harrison et al. found that in the deepest, hottest part of the borehole, over 20% of the nuclear-decay-generated argon has leaked out of the feldspar crystals. They also measured how fast argon leaks from the feldspar at various depths in the borehole. Using those data, I show that even assuming that the deepest sample did not get hotter than its present temperature, it would have lost nearly all of its argon in a million years. That is why Harrison et al. were forced to assume the temperature was very low until relatively recently. Then, they assumed that some unknown, unspecified source of heat rapidly raised the temperature in just twenty thousand years up to today's high temperature. Creationist geophysicist Dr. John Baumgardner told me that "given the small value for the measured heat conductivity of granite, such a temperature scenario for this site is not defensible, since it violates the simple and well-known physics of heat diffusion."⁵¹¹

Another article follows up:

⁵¹¹ <https://creation.com/argon-from-rate-site>, "Argon from RATE site confirms the earth is young: A second noble gas testifies to the biblical 6,000 years," and "A million year volcano would eliminate Argon," Russell Humphreys, July 2012.

The rock in the borehole is dry, which combined with its low heat conductivity means that its temperature cannot change rapidly. Even if we assume Harrison et al. were correct in postulating a recent (and as yet completely unobserved) intrusion of lava very close to the borehole, the temperature could not have changed by more than 50 Celsius degrees (90 Fahrenheit degrees) over the past five millennia. That is a relatively small change. More reasonable uniformitarian heat models for the site done by Los Alamos National Laboratory give much smaller changes. That allows us to assume (for simplicity of calculation) that the rock temperature has been roughly constant over those past few thousand years.

The uniformitarian scenario of long ages would leave the rocks with almost no helium and little argon, contrary to the



observations of both RATE and Harrison et al. Then, using Harrison's own data and equations, I calculate that the feldspar in the rock formation would have lost the observed amount of argon in only 5,100 years, give or take a few millennia according to

my estimate of the experimental uncertainty in the data. This age is consistent with results in the Harrison et al. paper, although they wanted to regard the numbers as indicating only the duration of their assumed fast heating pulse after their alleged eons of incredible coolness.

This 5,100-year argon diffusion age is consistent with RATE's helium diffusion age of $(6,000 \pm 2,000)$ years for the same rock formation. So now we have two different age measurements using two different gases from two different types of nuclear decay in two different minerals—and the two methods agree within their error bounds. In contrast, the uniformitarian scenario of long ages would leave the rocks with almost no

helium and little argon, contrary to the observations of both RATE and Harrison et al.

Scriptures such as 2 Corinthians 13:1 say that “... every fact is to be confirmed by the testimony of two or three witnesses.” Helium from the RATE borehole has already testified to an earth that is thousands, not billions, of years old. Now, argon from the same site has become a second noble-gas witness confirming the biblical youth of the world.⁵¹²

⁵¹² *Ibid.*, Russell Humphries, “Argon data say the site is young.” In a June 19, 2018 paper, Humphreys answers his critics at <https://greatdebatecommunity.com/2018/07/07/dr-humphreys-response-to-criticisms-of-dr-henke-and-dr-loechelt>. He states: “The critics don’t like the results of my project. I found evidence that tiny radioactive zircon crystals (Figure 1) in granitic rock several miles deep in a borehole in New Mexico are only about 6000 (± 2000) years old, in contrast to the 1.5 Billion years’ worth (assuming today’s rate) of uranium-to-lead decay the zircons have undergone. The evidence is the remarkably high percentage of helium from uranium decay that the crystals have retained, combined with measurements by an expert showing that helium leaks out of these crystals rather rapidly. Exhaustive details are in my chapter of the RATE results book. Figure 2 shows the evidence. The vertical axis, “Diffusivity,” gives the rate of leakage of helium out of the crystals. Notice that the vertical scale is very compressed (“logarithmic”), covering a trillion-fold range of numbers. The horizontal axis is the temperature of the crystals in the borehole and then in the lab. To help non-experts, I’ve shown the temperature increasing from left to right, rather than the other way around (as in Figures 5 and 6 below). The blue dots show the helium leak rates that Ken Farley measured from these zircons. Dr. Farley, at Cal Tech, is a world-class expert on helium diffusion (spreading in, leakage from) in geologic minerals. The black numbers, “58”, “42”, etc., are the percentages of helium now retained in the zircons as compared to the amount of helium that 1.5 billion years’ worth of uranium-to-lead decay deposited in them initially. The red diamonds labeled “6,000 years” are the diffusivities I predicted the zircons would be shown to have if they were indeed six millennia old. The data (the blue dots), taken three years later, confirm the prediction remarkably well. On the other hand, the data are between 100,000 times to a million times higher than the low diffusivities labeled “1.5 Billion years” (magenta diamonds) that would be required for the zircons to retain the measured percentages after that much time. In other words, a straightforward understanding of the experimental data says the zircons are far too leaky to retain their helium longer than thousands of years, certainly not for millions of years or more.

Rb-Sr (RUBIDIUM-STRONTIUM) METHOD:

Long-age interpreters also attempt to use the Rb-Sr method. It is based on the radioactivity of ^{87}Rb which undergoes decay to ^{87}Sr with a supposed half-life of 48.8 billion years. Rubidium occurs as a trace element in most rocks. Strontium is present as a trace element in most minerals when they form (unlike Argon, which escapes easily from most molten rocks). The Rb-Sr dating is done primarily with the “isochron method” which is claimed to eliminate the problem of determining the initial Strontium. Because of the assigned long half-life of ^{87}Rb , the Rb-Sr dating is used mostly on rocks claimed to be older than about 50 to 100 million years, for only in these rocks has sufficient time elapsed for measurable quantities of ^{87}Sr to accumulate. Because of its relative resistance to post-formation events, the Rb-Sr dating (by the isochron method) is used extensively to determine the ages of the oldest rocks in the solar system.⁵¹³

In one study, Steven Austin examined the consistency of four main radiometric dating methods on Precambrian samples from two locations. The samples were collected from the Beartooth Mountains amphibolite and the Bass Rapids diabase sill in Grand Canyon. Austin used the isochron technique that employs different minerals from the same rock. The isochron method is considered superior because a straight line on the isochron plot means two of the three main assumptions of radioactive dating (the closed system and initial conditions assumptions) are supposed to be validated.

Andrew Snelling, a Ph. D. geologist, took Austin’s study a step further by analyzing igneous rocks of many supposed ages, ranging from the recent to the Precambrian. Snelling obtained some very anomalous dates. For instance, some 20th century lava flows from Mt. Ngauruhoe, New Zealand, gave a Rb-Sr isochron age of 133 Ma (133 million years), a Sm-Nd isochron age of 197 Ma, and a Pb-Pb age of 3.908 Ga (3.908 billion years) for the cooling time of the modern lavas. Snelling makes a case that the millions and billions of years for these rocks is likely inherited from the mantle and/or due to flood accelerated decay. There may also be some

⁵¹³ Dalrymple, pp. 94-95.

mixing of magma. In a summary statement, Snelling writes of the significance of these results for radiometric dating:

‘All these considerations—isochron discordances, inheritance of mantle source isotopic signatures, and mixing of crustal contamination—must render radioisotope “dating” highly questionable at best, and useless at worst, as the absolute “dating” method is so unanimously and forthrightly claimed to be.’⁵¹⁴

SM-ND, LU-HF, AND RE-OS METHODS

In recent years the Sm-Nd (Samarium-Neodymium) method has appeared. It is claimed the Sm-Nd method is more resistant to metamorphism than other dating methods, which gives it a decided advantage for age measurements of very old rocks. Ancient basalt and the achondrite meteorites contain so little K, Rb, and U that more precise dating can only be done with the Sm-Nd method. Additionally, the Lu-Hf (Lutetium-Hafnium) and Re-Os (Rhenium-Osmium) methods while infrequently used, are claimed to provide some valuable data relevant to the age of meteorites.⁵¹⁵

The bottom line, by their own admission, is all the dating methods other than K-Ar, that is, Rubidium-Strontium; Samarium-Neodymium; Lutetium-Hafnium, *etc.*, are all less accurate. These methods suffer from the same handicaps, that is: (a) there is always some undetermined amount of the daughter element in the original sample, and (b) it is dishonest to first claim the rocks are “very old rocks,” and then develop a method of radiometry to verify that unproven fact.

⁵¹⁴ *A review of Radioisotopes and the Age of the Earth, Volume II: Results of a Young-Earth Creationist Research Initiative*, edited by Larry Vardiman, Andrew A. Snelling and Eugene F. Chaffin, Institute for Creation Research, El Cajon, CA, and Creation Research Society, Chino Valley, AZ, 2005, p. 456. See also: <http://www.icr.org/article/whole-rock-model-isochron>; Fifth International Conference on Creationism, R. L. Ivey (Eds.), pp. 305–324, 2003.

⁵¹⁵ Dalrymple, pp. 95-97.

U-TH-Pb METHODS:

These methods are based on the radioactivity of ^{235}U , ^{238}U , and ^{232}Th which all decay to different isotopes of Pb (Lead). Although these involve a decay series with intermediate radioactive daughter products, it is believed the decays of ^{238}U to ^{206}Pb , ^{235}U to ^{207}Pb , and ^{232}Th to ^{208}Pb , can be treated as a simple one-step decay since each of the three series are entirely independent of the others and the half-lives of the intermediates are very much shorter than the three parents. Because of the problems of initial Pb and Pb loss, the U-Th-Pb methods of dating are most often applied with the use of “isochron” or “concordia-discordia” diagrams which circumvent the initial daughter problems mentioned earlier.⁵¹⁶

Despite the claims, the “isochron” or “concordia-discordia” substitution for not knowing the amount of the daughter element is merely a fudge factor based on unproven assumptions. It begins with the idea the rocks are very old and the half lives are always in the multi-billions of years, and then works its way backwards with an “isochron” method to get to the desired figure. Why? Because they don’t consider long-ages to be an assumption, only fact.

Andrew Snelling comments on the failures of the isochron method in a recent paper:

As with other radiometric ‘dating’ methods, the U-Pb and Pb-Pb isochron methods have been questioned in the open literature, because often an excellent line of best fit between ratios obtained from a set of good cogenetic samples gives a resultant ‘isochron’ and yields a derived ‘age’ that has no geological meaning. At the Koongarra uranium deposit, Australia, there is ample evidence of open system behaviour, or repeated migration, of U and Pb — ore textures, mineral chemistry, supergene alteration, uranium/daughter disequilibrium, and groundwater and soil geochemistry. Yet U-Th-Pb isotopic studies of the uranium ore, host rocks and soils have produced an array of false ‘isochrons’ that yield ‘ages’ which are geologically meaningless. Even a claimed near-concordant U-

⁵¹⁶ Dalrymple, pp. 99-102.

Pb ‘age’ of 862 Ma (million years) on one uraninite grain is identical to a false Pb-Pb isochron ‘age’ but neither can be connected to any geological event. The open system behaviour of the U-Th-Pb system is clearly the norm, as is the resultant mixing of radiogenic Pb with ‘common’ or background Pb, even in soils in the surrounding region, apparently even up to 17 km away! Because no geologically meaningful results can be interpreted from the U-Th-Pb data at Koongarra (three uraninite grains even yield a $^{232}\text{Th}/^{208}\text{Pb}$ ‘age’ of 0 Ma), serious questions must be asked about the validity of the fundamental/foundational basis of the U-Th-Pb ‘dating’ method. This makes the task of creationists building their model for the geological record much easier, since claims of U-Th-Pb radiometric ‘dating’ having ‘proven’ the claimed great antiquity of the earth, its strata and fossils can be justifiably ignored.⁵¹⁷

As Dalrymple notes, his evolutionary theory holds the half-life of ^{238}U is 4.5 billion years, which, since they estimate the earth to be the same age, seems to serve as a good dating device for them. Other elemental pairs used in radiometric dating are: Samarium¹⁴⁷ to Deodmium¹⁴³ (half-life of 106 billion years); Rubidium⁸⁷ to Strontium⁸⁷ (half-life of 48.8 billion years); Rhenium¹⁸⁷ to Osmium¹⁸⁷ (half-life of 42 billion years); Lutetium¹⁷⁶ to Hafnium¹⁷⁶ (half-life of 38 billion years); Thorium²³² to Lead²⁰⁸ (half-life of 14 billion years); Potassium⁴⁰ to Argon⁴⁰ (half-life of 1.26 billion years); Uranium²³⁵ to Lead²⁰⁷ (half-life of .7 billion years); Beryllium¹⁰ to Boron¹⁰ (half-life of 1.52 million years); Chlorine³⁶ to Argon³⁶ (half-life of 300,000 years); Carbon¹⁴ to Nitrogen¹⁴ (half-life of 5715 years).⁵¹⁸

Whether these decay rates are correct or not remains to be seen. Decay rates measured within the last 50-80 years depend on a pure parent sample, which is set aside for a length of time to produce the daughter element, but this assumes both a known parent-to-daughter ratio that cannot be known 4.5 billion years ago, as well as assuming the present decay rate has always been the same, which cannot be proven. Again, the whole scheme

⁵¹⁷ <https://creation.com/the-failure-of-u-th-pb-dating-at-koongarra-australia>, “The failure of U-Th-Pb ‘dating’ at Koongarra, Australia,” April 1995.

⁵¹⁸ Data taken from N. E. Holden’s *Pure Appl. Chem.* 62 (1990): 941-958.

is based on uniformitarianism, the very antithesis of what the global flood (Genesis 6-9) would have produced.

Further, it is assumed that taking the known decay rate of ^{238}U from laboratory experiments, the results can then be compared to the remaining Uranium in the rock specimen, along with the amount of Lead in the rock, and it can be estimated how long it has taken the Lead to form from the original Uranium. Although this methodology sounds quite logical, it is only so in theory. The reason is, the method depends on three unprovable assumptions:

(1) all the Lead found in the specimen must be assumed to be originally from the Uranium, but there is no way to know this needed fact. There may have been some Lead already in the rock when it was formed, that is, before the Uranium in the rock began to decay. Since it is known that natural Lead appears in rock, it would be quite presumptuous to attribute all of it to Uranium decay. Consequently, if the amount of Lead in the rock pre-existed the decay of the Uranium, then the age of the rock will turn out to be much less than if all the Lead in the rock was due to Uranium decay.

(2) Due to the process of leaching, Uranium, as well as many other radioactive elements, are quite capable of dissolving in water. Hence, if the rock was subjected to water for any length of time (of which there is an abundant supply on earth), this would directly affect the amount of Uranium the rock would contain at any given time. In this scenario, if one were to measure the age of the rock unaware that Uranium had leached out, the estimate of age would be much too great. Biblical scientists, who hold to a world-wide deluge as recorded in Genesis 6-9, assert that the flood waters would disrupt all such isotope dating in which the parent element was subject to leaching.

(3) Current radiometric dating assumes the rate of decay has remained constant for millions of years, without any appreciable deviation due to outside forces. Once again, such uniformitarianism is an absolute necessity for long-age theory. Although it is true that radioactive atoms have been subjected to temperature, pressure, and chemical changes in the laboratory without changing their decay rate, nevertheless, natural forces, such as neutrinos from cosmic radiation, disturb the decay process. The decay rates of ions are known to differ from neutral

atoms. In addition, such events as the reversal of the earth's magnetic field, which has been documented as occurring in both the past and near present, as well as any galactic event, such as a supernovae explosion, could cause alterations to the decay rate of radioactive elements.

Recently a study of Uranium decay was conducted by some leading creationist geologists and physicists under the title, *Radioactivity and the Age of The Earth* (RATE). The RATE project began as a cooperative venture between the *Institute for Creation Research* (ICR), the *Creation Research Society of USA* (CRS) and *Creation Ministries International* (CMI). Here are their findings:

When uranium decays to lead, a by-product of this process is the formation of helium, a very light, inert gas, which readily escapes from rock. Certain crystals called zircons, obtained from drilling into very deep granites, contain uranium which has partly decayed into lead. By measuring the amount of uranium and 'radiogenic lead' in these crystals, one can calculate that, if the decay rate has been constant, about 1.5 billion years must have passed. (This is consistent with the geologic 'age' assigned to the granites in which these zircons are found.) However, there is a significant proportion of helium from that '1.5 billion years of decay' still inside the zircons. This is, at first glance, surprising for long-agers, because of the ease with which one would expect helium (with its tiny, light, unreactive atoms) to escape from the spaces within the crystal structure. There should surely be hardly any left, because with such a slow buildup, it should be seeping out continually and not accumulating.

Drawing any conclusions from the above depends, of course, on actually measuring the rate at which helium leaks out of zircons. This is what one of the RATE papers reports on. The samples were sent (without any hint that it was a creationist project) to a world-class expert on helium diffusion from minerals to measure these rates. The consistent answer: the helium does indeed seep out quickly over a wide range of temperatures. In fact, the results show that because of all the helium still in the zircons, these crystals (and since this is Precambrian basement granite, by implication the whole earth) could not be older than

14,000 years. In other words, in only a few thousand years, 1.5 billion years' worth (at today's rates) of radioactive decay has taken place. Interestingly, the data have since been refined and updated to give a date of 5,680 (\pm 2,000) years.⁵¹⁹

Not surprisingly, none of this kind of evidence appears in Fr. Robinson's book. Nevertheless, we have a perfectly viable scientific explanation why modern radiometry cannot prove the universe and Earth are billions of years old. Above we have a simple case of a misapplication by long-age interpreters of how much Helium is supposed to diffuse out of the specimen. Interestingly enough, the date reached by these researchers based on a proper evaluation of the Helium diffusion comes to "5,680 (\pm 2000) years," and fits in precisely with the chronology of human kind recorded in Genesis 5 and 11.

POLONIUM HALOES

Directly related to the anomalies of radiometric dating for the long-ager is the case of Polonium halos. Dr. Robert Gentry is the expert in this field. He tested over one hundred thousand samples of granite from a variety of places on earth and found that each contained micaurbitate, which in turn contained rings of Polonium. The Polonium isotopes consisted of ²¹⁰P, ²¹⁴P, and ²¹⁸P. The oddity is, the halos, due to the decay rate of these Polonium isotopes, last a very short time. The half-life of ²¹⁰P is 22 days; the half-life of ²¹⁸P is 3 minutes; and for ²¹⁴P it is 0.000164 micro seconds. This means, unless the granite was created instantaneously, it would not be possible for the Polonium isotopes to be captured so as to appear as a viable specimen of radioactivity many years later.

Conversely, Dalrymple claims:

Slusher (1976, p. 283) states, "evolutionist geologists have long ignored the evidence of variability in the radii of pleochroic haloes [polonium haloes], which shows that the decay rates are not constant and would, thus, deny that some radioactive elements such as uranium could be clocks." In a review of the subject, however, Gentry (1973) concludes that the data from pleochroic halo studies are inconclusive

⁵¹⁹ <https://creation.com/radiometric-dating-breakthroughs>

on this point—the uncertainties in the measurements and other factors are too great.⁵²⁰

Some long-age scientists attempt to explain this anomaly by hypothesizing the halos were not produced by an initial concentration of the radioactive element. Instead, if water seeped through cracks in the minerals, it would have caused a chemical change such that newly-formed Polonium would drop out of solution at a certain place and almost immediately decay. In the process, a halo would build up over a long period of time. The problem with this hypothesis is it assumes the Polonium would not decay in the water before it “dropped out of solution.” Considering the half-life of Polonium²¹⁴ is 0.000164 micro seconds, this hardly gives any time for Dalrymple’s hypothesized process to occur.

CARBON 14 DATING

For specimens under 10,000 – 50,000 years old, the preferred means of determining age is by calculating organic decay by means of measuring the amount of ¹⁴C left in the specimen. Carbon¹⁴ is an isotope of ¹²C that is unstable. It has two extra electrons in orbit that cannot be held for long by the Carbon nucleus. Thus, the two electrons eventually escape, leaving the stable element of ¹²C. The rate the two ¹⁴C electrons escape from a specific sample can be measured and matched against the known decay rate of ¹⁴C, assuming the decay rate never changes. Carbon¹⁴ exists in all living matter. During its life, the biological specimen absorbs and expels Carbon, a small amount of which is ¹⁴C. After the specimen dies, the ¹⁴C begins its uninterrupted decay and dissipates into the environment. Current radiometry has calculated it takes 5,760 years for half of the original amount of ¹⁴C in the organic specimen to decay into the stable form, ¹²C. This is known as the “half-life.” Thus, by measuring how much Carbon¹⁴ has decayed, an indication of how long ago the organism was alive is obtained. This calculation is rather easy to accomplish for recently deceased or specially preserved specimens, but since fossils are specimens that have since turned into stone, they do not contain any Carbon, and therefore they cannot be dated using the ¹⁴C method. Incidentally, dinosaur soft-tissue specimens from the PaleoGroup headed by Hugh Miller, have

⁵²⁰ *Radiometric Dating*, op. cit., pp. 14-15.

found that the ^{14}C levels in all their tests have always been less than 50,000 years, which is quite different than the claims made by modern paleontology that dinosaurs are at least 70-million-years old. Other scientists have found more astounding information regarding Carbon-14:

Another dramatic breakthrough concerns radiocarbon. It's long been known that radiocarbon (i.e. carbon-14, or ^{14}C) keeps popping up reliably in samples (of coal, oil, gas, etc.) which are supposed to be 'millions of years' old. However, with the short half-life of ^{14}C it should decay to zero in only some tens of thousands of years at the most. For instance, CMI has, over the years, commissioned and funded the radiocarbon testing of a number of wood samples from 'old' sites (e.g. samples with Jurassic fossils, samples inside Triassic sandstone, and samples burnt by Tertiary basalt) and these were published (by then staff geologist Dr Andrew Snelling) in *Creation magazine* and *Journal of Creation*. In each case, with contamination eliminated, the result has been in the thousands of years, i.e. ^{14}C was present when it 'shouldn't have been'. These results encouraged the rest of the RATE team to investigate ^{14}C further, building on the literature reviews of creationist physician Dr Paul Giam.

In another very important paper, scientists from the RATE group summarized the pertinent facts and presented further experimental data. The bottom line is that virtually all biological specimens, no matter how 'old' they are supposed to be, show measurable ^{14}C levels. This effectively limits the age of all buried biota to less than (at most) 250,000 years. (When one takes into account the probability that before the Flood the ratio of radioactive to 'normal' carbon was much lower, the calculated age comes right down into the biblical 'ballpark'.)

Interestingly, specimens which appear to definitely be pre-Flood seem to have ^{14}C present, too, and importantly, these cluster around a lower relative amount of ^{14}C . This suggests that some ^{14}C was primordial (existing from the very beginning), and not produced by cosmic rays—thus limiting the age of the entire earth to only a few thousand years.

This appears to have been somewhat spectacularly supported when Dr Baumgardner sent five diamonds to be analyzed for ^{14}C . It was the first time this had been attempted, and the answer came back positive— ^{14}C was present. The diamonds, formed deep inside the earth, are assumed by evolutionists to be over a billion years old. Nevertheless they contained radioactive carbon, even though, if the billion-year age were correct, they ‘shouldn’t have’.

This is exceptionally striking evidence, because a diamond has remarkably strong lattice bonds (that’s why it’s the hardest substance known), so subsequent atmospheric or biological contamination should not find its way into the interior.

This is exceptionally striking evidence, because a diamond has remarkably strong lattice bonds (that’s why it’s the hardest substance known), so subsequent atmospheric or biological contamination should not find its way into the interior.

The diamonds’ carbon-dated ‘age’ of about 58,000 years is thus an upper limit for the age of the whole earth. Again, this is entirely consistent with helium diffusion results reported above, which indicate the upper limit is in fact substantially less.

^{14}C workers have no real answer to this problem, namely that all the ‘vast-age’ specimens they measure still have ^{14}C . Labeling this detectable ^{14}C with such words as ‘contamination’ and ‘background’ is completely unhelpful in explaining its source, as the RATE group’s careful analyses and discussions have shown. But it is no problem or mystery at all if the uniformitarian/long-age assumptions are laid to one side and the real history of the world, given in Scripture, is taken seriously. The ^{14}C is there, quite simply, because it hasn’t had time to decay yet. The world just isn’t that old!

The ^{14}C results are an independent but powerful confirmation of the stunning helium-diffusion results. It looks like 2003 was a bad year for megachronophiles (lovers of long ages), but a good year for lovers of the Word of God.⁵²¹

⁵²¹ *Ibid.*

We will also provide some important facts from John Woodmorappe's detailed an exhaustive critique of secular radiometric dating methods.⁵²² First, his abstract:

The use of radiometric dating in Geology involves a very selective acceptance of data. Discrepant dates, attributed to open systems, may instead be evidence against the validity of radiometric dating. A systematic and critical review of dating applications is presented; emphasis being placed on the geologic column. Over 300 serious discrepancies are tabulated. It is, however, demonstrated that most discrepant results are not published. Discrepant dates capriciously relate to petrography and regional geology. Neither internal consistencies, mineral-pair concordances, nor agreements between different dating methods necessarily validate radiometric dating. The large spread of values for igneous and metamorphic rocks (especially of the Precambrian) may indicate artificial imposition of time-values upon these rocks.

Let's see what Dalrymple says of Woodmorappe's work:

The advocates of "scientific" creationism frequently point to apparent inconsistencies in radiometric dating results as evidence invalidating the techniques (for example, Woodmorappe, 1979). This is akin to concluding that all wristwatches do not work because the one on your arm does not keep accurate time. In fact, the small number of "wrong" ages are nearly all due to unrecognized geologic factors, to unintentional misapplication of the techniques, or to technical difficulties. Also, some of the examples cited by the proponents of "scientific" creationism are not anomalous but instead are misrepresentations by the creation "scientists" of radiometric dating techniques and the way in which they are used. Like any complex procedure, radiometric dating does not work all the time under all circumstances. Each technique works only under a particular set of geologic conditions. In addition, scientists are continually learning, improving techniques, and sharpening methods of interpretation, and

⁵²² www.evcforum.net/DataDropSite/Radiometric%20Dating%20Reappraised.pdf. "Radiometric Geochronology Reappraised", John Woodmorappe, *Christian Research Science Quarterly*, Dec. 11, 1978, pp. 102 – 130. Many don't like his criticisms, claiming that he digs up "too much dirt," see this: https://www.noanswersingenesis.org.au/woodmorappe_nothing_good_henke.htm

some of the “errors” are not errors at all but are simply results obtained in the continuing effort to improve the methods and their application. There are, to be sure, inconsistencies, errors, and results that are not understood, but these are very few compared to the vast body of consistent and sensible results that clearly indicate that the methods do work and that the results, properly applied and carefully evaluated, can be trusted.⁵²³ These experiments usually involve counting the number of particles emitted per unit time from a known quantity of the parent isotope.⁵²⁴

But Woodmorappe, in his inimitable way, digs up the dirt on radiometry like no one else and exposes its fatal weakness. Here are some excerpts taken from his famous paper:

Creationist-Diluvialists have uncovered dozens of powerful evidences for an Earth age of only several thousand years, and these scientific evidences are summarized by Morris. Reasons for questioning the validity of radiometric dating are presented in the major works by Whitcomb and Morris, Cook, Slusher, and Wilkerson.⁵²⁵

Thus open systems caused by geologic events (“geological interpretation”) is claimed as a cause of spurious dates, but a less self-congratulatory view would be that only a select number of dates are accepted as indicating the true age of the rock; others explained away as having become open systems.

It will become obvious that actually grossly contradictory results are obtained from materials of the same geologic periods and that some values are accepted as true, while others are explained away. It cannot be said that discrepancies are primarily caused by the poorer analytical equipment available in the late 1950’s early 1960’s as contrasted with that of the late 1970’s. Recently, Waterhouse said: “Improved

⁵²³ *Radiometric Dating, op. cit.*, pp. 3-4.

⁵²⁴ *Ibid.*, p. 15.

⁵²⁵ Morris, H. M. 1975. “The Young Earth,” *Creation Research Society Quarterly* 12(I): 19-22; Whitcomb, J. C. Jr., and H. M. Morris. 1961. *The Genesis Flood*, Presbyterian and Reformed Pub. Co., Pennsylvania, p. 33 1-368; Cook, M. A. 1966. *Prehistory and Earth Models*, Max Parrish, London, p. 23-66; Iusher, H. S. 1973, “Critique of Radiometric Dating,” ICR Monograph, 2-47; Wilkerson, G. 1976, “Review of Uranium-Thorium-Lead Radiometric Dating Methods” (in D. A. Wagner, ed., 1976, *Student Essays on Science and Creation* 1:50-91.

laboratory techniques and improved constants have not reduced the scatter in recent years. Instead the uncertainty grows as more and more data is accumulated...”

The arbitrariness of the practice of selecting some values as being true and disregarding others which conflict with them was recently admitted by Waterhouse, who commented:

It is, of course, all too facile to ‘correct’ various values by explanations of leakage, or initially high concentrates of strontium or argon. These explanations may be correct, but they must first be related to a time line or ‘line of values’ itself subject to similar adjustments and corrections on a non-statistical, non-experimental basis.⁵²⁶

The uniformitarians may contend that there are many more dates in agreement with accepted values than there are anomalies such as all of Table 1. Even if this were true, it would not appear to be an overwhelming majority, and a significant minority of discrepant dates would probably be sufficient to discredit all of radiometric dating. Since most igneous bodies have wide biostratigraphic limits, it is difficult to tell that a date is not anomalous because it could take on many different values and not be anomalous.⁵²⁷

In a recollection of how anomalous dates re-occurred, Curtis, *et al*, said: “As a result I suggest that it would be important to report all anomalous results.” This is not done. Most sobering of all is the following recent statement by Mauger: “In general, dates in the ‘correct ball park’ are assumed to be correct and are published, but those in disagreement with other data are seldom published nor are discrepancies fully explained.”⁵²⁸

There is a tendency to leave unpublished the results which conflict with those of other investigators or which disagree with accepted values.

⁵²⁶ Hofmann, A. W., Mahoney, J. W., and B. J. Giletti. 1974. “K-Ar and Rb-Sr Data on Detrital and Postdepositional History of Pennsylvanian Clay from Ohio and Pennsylvania,” GB 85:640-2.

⁵²⁷ *Ibid.*

⁵²⁸ Mauger R. L. 1977. “K-Ar Ages of Biotites from Tuffs in Eocene Rocks of the Green River, Washakie, and Uinta Basins, Utah, Wyoming, and Colorado,” (University of Wyoming) *Contributions to Geology* 15(1):37, p. 283.

Dating of fossil material and limestone samples has been abandoned because in nearly every case (as ref. 46; Jurassic and Triassic, Table 1) the K-Ar ages are far too low, and this is attributed to the low argon-retentive properties of calcite.

Sedimentary rocks are dated by the K-Ar and Rb-Sr methods utilizing the authigenic minerals glauconite and illite. In dating glauconites, Rubinstein commented: “. . . we often get anomalously high figures.”

Although some correlation of anomalous dates with permeability of host rock and depth of burial were found by Morton and Long, they otherwise stated:

Several factors were studied which could correlate with open-system behavior: grain morphology, extent of weathering, percent expandable layers, recrystallization caused by former deep burial, and permeability of the host rock....None of these factors, singly or in combination, was infallibly useful to predict which of the Llano glauconites will have behaved as an open or closed chemical system...⁵²⁹

Owens and Sohl found similar crystallinity and compositions between glauconites yielding expected, and anomalous, dates.⁵³⁰

Most any discrepant date can be excused on the basis of some presumed system-opening situation. The wide variety of factors which presumably cause open systems and plasticity in attributing anomalous dates to these factors suggest that these are just rationalizations. An alternative view would be that dates are discrepant not because of “open systems” and geologic causes but because radiometric dating is invalid.

Rb-Sr mineral dates, like the K-Ar dates, are subject to the same interpretations when the dates turn out discrepant (for example Permian, ref. 95, Table 1). The Lowville Limestone (Ordovician, ref. 113, 178, Table 1) is one of several examples in Table 1 of situations where Rb-Sr illite isochrons are constructed but not accepted as the age of the rock because of their very discrepant values. The ages that were

⁵²⁹ Morton, J. P. and L. E. Long. 1978. “Rb-Sr Ages of Paleozoic Glauconites From Llano Region of Central Texas,” *GA IO* (1):22-3.

⁵³⁰ Hofmann, A. W., Mahoney, J. W., and B. J. Giletti, op. cit.

“too old” were supposed to indicate that the Sr isotopes had homogenized in the source region and not in the shale at the time of its deposition. At the same time, “too young” Rb-Sr isochrons were considered to be indicators of diagenetic Sr isotope homogenizations long after deposition of the shale.⁵³¹

U-Th-Pb methods have been used in dating uranium-bearing shales. They are now not considered to remain closed systems throughout alleged geologic time. The classic Swedish kolm (Cambrian, ref. 187, Table 1) is an outstanding example of erratic dates being attributed to its inability to remain a closed system.⁵³²

The implications of all these findings are enormous. Any discrepant date can be explained away, and a heating or weathering event can be invented whenever necessary for this purpose. No evidence need be found because its absence can be attributed to it being strong enough to make the unwanted date discrepant, but too weak to show up in thin section. An illogical situation arises because at one time it is claimed that radiometric dates have withstood obvious alteration of the rock, while at other times they supposedly were so sensitive that they were made discrepant by an event too weak to alter the rock itself. A skeptical view of radiometric dating looks at all these lacks of correlation of alteration and discrepancy of dates as evidence that they are just rationalizations, and that discrepant dates are not primarily caused by alteration but by the fundamental invalidity of radiometric dating.

Rationalizations for discrepant dates are also formed on the basis of the regional geologic context of the rock sample being dated. The reasoning involved is best described by Evernden and Richards:

Thus, if one believes that the derived ages in particular instances are in gross disagreement with established facts of field geology, he must conjure up geological processes that could cause anomalous or altered argon contents of the minerals.⁵³³

⁵³¹ *Ibid.*

⁵³² Bell, J. S. 1973. “Late Paleozoic Orogeny in the Northern Yukon,” *Proceedings of the Symposium on the Geology of the Canadian Arctic*, pp. 30-31.

⁵³³ Evernden, J. F., Curtis, G. H., Obradovich, J., and R. Kistler. 1961, “On the Evaluation of Glauconite and Illite for dating sedimentary rocks by the potassium-

Any discrepant date can be explained away by claiming that some event has opened the system, while at the same time claiming that the alleged event is not recorded in regional geology if the discrepancy cannot be conveniently fitted into the geologic history of the region as envisioned by uniformitarians.⁵³⁴

Volcanogenic ash very frequently yields “too old” K-Ar dates. It is claimed that this is from “excess radiogenic Ar” whereby the parent magma is contaminated with argon heated out of the wall rock (vent) that it is coming through, and that the minerals which crystallize do so too rapidly to degas this contaminant argon. Scarborough writes: “Age information is interpreted carefully because of a distinct tendency for certain ash layers to contain a variable amount of excess argon.” Eocene tuffs (ref. 12, Table 1) are one of several such examples. Other anomalously old K-Ar dates are explained away by claiming contamination of the tuffs by detrital minerals. Christiansen et. al, said: “Preliminary K-Ar data from alkali feldspars of the second and third ash-flow sequences yield dates apparently too great, suggesting contamination by Precambrian feldspars.”

These alleged contaminants cannot readily be distinguished, according to Curtis et al, and they suggest that: “...the thing to do is get a sequence of dates and throw out those that are vastly anomalous.”⁵³⁵

Rationalizations for discrepant dates from lava flows are similar to those for tuffs. “Too old” K-Ar dates from lavas (for instance, basalt, ref. 118) are attributed to “excess argon.” K-Ar dates from lavas are commonly discrepantly young, and these results are explained away by claiming some thermally-induced argon loss (as from deuteric alteration or low-grade metamorphism) although (as the previous section demonstrated) no evidence for such an alleged event need be found.

A variation of the K-Ar method known as the Ar/Ar Spectral method has been used on plutons in recent years. It supposedly can distinguish between “excess argon,” “rejuvenated,” and “true” K-Ar dates because

argon dating method,” GC 23: 10; Bell, J. S. 1973; “Late Paleozoic Orogeny in the Northern Yukon,” *Proceedings of the Symposium on the Geology of the Canadian Arctic*, pp. 30-31.

⁵³⁴ Faul, H. 1962. Age and Extent of the Hercynian Complex. RU 521775.

⁵³⁵ *Ibid.*

a true K-Ar date will shed its argon uniformly at different temperature fractions, giving rise to a flat spectrum. The disturbed rock or one with “excess argon” will give off very different amounts of argon in different temperature-fractions and give rise to a “stepped” and “saddle” spectrum, respectively.⁵³⁶

The Ar40/Ar39 method of K-Ar dating failed dramatically by giving flat spectra for samples that would virtually certainly be considered to have been disturbed, and for samples containing “excess argon.”⁵³⁷

Any discrepant Rb-Sr isochron can be explained away by claiming that some points on it don't “belong” on that isochron because they allegedly came from different crustal sources and had different initial Sr⁸⁷/Sr⁸⁶ ratios. In the case of the Ben Vuirich Granite (ref. 171) the anomalously old Rb-Sr isochron was dismissed as “a spurious result” and attributed to source Sr isotopes not homogenizing.⁵³⁸

When stripped of all the claims of reactivation, it is obvious that rocks yield ages which spread over significant fractions of the entire earth's alleged 4.5-billion-year history. Such absurdly contradictory results may be further evidence against the validity of radiometric dating.⁵³⁹

Creationists and Diluvialists are not alone in their disbelief of radiometric dating. The fact that radiometric dating lacks credibility even in some uniformitarian circles is evident in the following statement by Houtermans:

Sometimes the dates given by radioactive methods are accepted enthusiastically by the classical geologists, sometimes if these dates do not fit their previously formed hypotheses they come to the conclusion to deny the usefulness of radioactive methods altogether.

Similarly, Brown and Miller commented:

⁵³⁶ Wanless, R. K. I., Stevens, R. D., Lachance, G. R., and R. N. Delabio. 1974. *Age Determinations and Geological Studies: K-Ar Isotopic Ages*, Report II. CG 73-2, pp. 73-4.

⁵³⁷ *Ibid.*

⁵³⁸ *Ibid.*

⁵³⁹ Hurley P. M. 1966. *K-Ar Dating of Sediments*, p. 1804.

Much still remains to be learned of the interpretation of isotopic ages and the realization that the isotopic age is not necessarily the geologic age of a rock has led to an over-skeptical attitude by some field geologists.

Whether the skepticism has been excessive or whether it has been insufficient is, of course, a matter of opinion. Every paradigm has explanations for data that won't fit it. The paradigm crumbles when the explanations are not accepted and considered to be only excusing rationalizations that cover-up the basic failure of the paradigm. Likewise, all of the various open-system explanations for discrepant results may be accepted at face value, or they may be seen as excusing rationalizations that cover up the invalidity of radiometric dating and all the eons of time that it purportedly demonstrates and measures.⁵⁴⁰

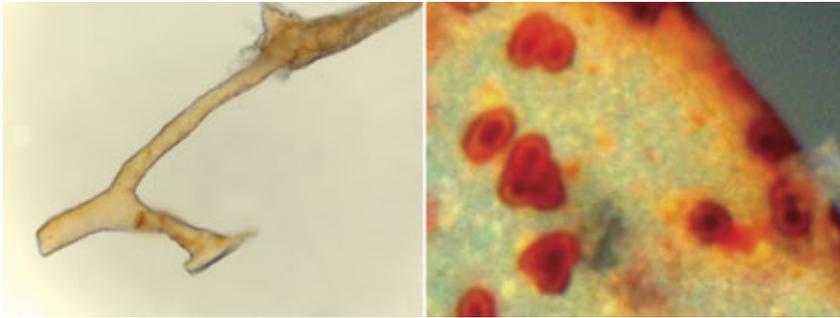
In his other technical book, *The Mythology of Modern Dating Methods* (1999), Woodmorappe investigated 494 geological dating tests written in various scientific journals. He found an assortment of fallacious claims and reasonings. He saw everything from scientists who allowed only themselves to check their work; to rank data manipulation; to the absence of standard reliability criteria and norms; to basing conclusions on premises without proof. He found geologists in particular invented a new vocabulary to smooth over the anomalies they confront, such as “delayed-uplift ages,” “rejuvenated dates,” “inherited isochrons,” *etc.*, all of which are for one purpose – to hide the real facts from the public.

MARY SCHWEITZER AND THE T-REX

We can imagine the pressure on these scientists are under, whose very jobs depend on finding the “right” data to support long-age or evolutionary theory. One popular example is that of professor Mary Schweitzer, who found soft tissue and blood vessels in the bone of a Tyrannosaurus Rex. Paleontology understands that all such remnants of dinosaurs are no younger than 70 million years old. But since dinosaurs with tissue and blood vessels cannot possibly be so old, Mary was told by her boss, Jack Horner, the curator of paleontology and one of the world's foremost dinosaur authorities, not to let it be known. As Mary recounts the story,

⁵⁴⁰ Wanless, *op. cit.*

He took a look for himself. Brows furrowed, he gazed through the microscope for what seemed like hours without saying a word. Then, looking up at me with a frown, he asked, ‘What do you think they are?’ I replied that I did not know, but they were the right size, shape and color to be blood cells, and they were in the right place, too. *He grunted, ‘So prove to me they aren’t.’* It was an irresistible challenge, and one that has helped frame how I ask my research questions, even now.”⁵⁴¹



Whereas Jack and Mary should have both been beside themselves with astonishment and ready to go wherever the empirical evidence led them, instead we have one of the clearest examples of the agenda-driven side of modern science—ignore any evidence that refutes the *status quo* and seek to turn all evidence into support of it. This is especially surprising of Mary Schweitzer since she is a member of the American Scientific Association whose website says it believes in...

...the divine inspiration, trustworthiness and authority of the Bible in matters of faith and conduct...the Triune God affirmed in the Nicene and Apostles' creeds which we accept as brief, faithful statements of Christian doctrine based upon Scripture...creating and preserving the universe God has endowed it with contingent order and intelligibility, the basis of scientific investigation”⁵⁴²

Hoping that Dr. Schweitzer would be more forthcoming, our team of scientists wrote to her and asked if we could do a Carbon-14 test on the T-Rex bone. This would have readily shown how old the specimen was. Other times we have done so show dates in the range of 15,000 to 30,000

⁵⁴¹ “Blood from Stone,” *Scientific American*, December 2010.

⁵⁴² www.asa3.org/index.php?option=com_content&view=article&id=76&Itemid=62

years. But Mary refused our offer. Perhaps she was afraid of losing her job as Dr. Richard von Sternberg lost his when after he wrote an article in 2007 for the *Proceedings of the Biological Society of Washington* favorable to Intelligent Design and was subsequently fired by the Smithsonian Institution because his article “does not meet the scientific standards of the Proceedings.” Incidentally, Dr. von Sternberg is a practicing Roman Catholic. If any of these scientists ever presented data that showed evidence the earth was 10,000 years old or less, he/she would not be employed for long.

As we have seen, radiometric evidence is not only an uncertain science, for years long-agers have been presupposing that a half-life of billions of years means that the element existed billions of years ago. At best this interpretation is unprovable; at worst, it is a fallacious and underhanded interpretation of the scientific data. The same goes for the geologic column. For years we have been told that the geologic column is a multi-million-year chronology of Earth’s history, since it has been assumed that strata were formed horizontally over extended periods of time. This simply is not provable. There are not only viable alternatives that state that the geologic column formed vertically, but this hypothesis is also testable in the laboratory and proven to be exactly the case.

THE CHURCH FATHERS ON THE DATING OF THE EARTH

The Church Fathers also give the same dating as to the age of the Earth. Of the Fathers who studied biblical chronology, those that did have dates that congregate rather closely to the above figure of “5,680 (\pm 2000) years.” Julius Africanus (d. 240) records 5536 for the date of the creation of Adam.⁵⁴³ Clement of Alexandria interprets Scriptural numbers in Book 1,

⁵⁴³ Thus is made up the whole period from the foundation of the Macedonian empire to its subversion in the time of the Ptolemies, and under Cleopatra, the last of these, the date of which event is the 11th year of the monarchy and empire of the Romans, and the fourth year of the 187th Olympiad. Altogether, from Adam 5472 years are reckoned” (extant fragments, XVII, 3); “In the year of the world 5533, that is 33 of Christ, namely the first year of the 203rd Olympiad, at the moment when Christ suffered his Passion horrific darkness covered the world and rocks were broken by an earthquake” (PG X, col. 90). Subtracting 203 from 187 is 16 years of Olympiads, or 64 years. $5472 + 64 = 5536$. The “fourth year of the 187th Olympiad” minus the “first year of the 203rd Olympiad” will necessitate a

Ch. 21 of the *Stromata*. There he enumerates a long series of chronological data. For our purposes, Clement specifies the length of time from Adam to Noah's Flood to the very day: "From Adam to the deluge are comprised two thousand one hundred and forty-eight years (2148), four days."⁵⁴⁴

Theophilus of Antioch gave a date of 5698 BC, as calculated from Adam to the death of the Roman emperor, Marcus Auerlius. He writes:

And from the foundation of the world the whole time is thus traced, so far as its main epochs are concerned. From the creation of the world to the deluge were 2242 years. And from the deluge to the time when Abraham our forefather begat a son, 1036 years. And from Isaac, Abraham's son, to the time when the people dwelt with Moses in the desert, 660 years. And from the death of Moses and the rule of Joshua the son of Nun, to the death of the patriarch David, 498 years. And from the death of David and the reign of Solomon to the sojourning of the people in the land of Babylon, 518 years 6 months 10 days. And from the government of Cyrus to the death of the Emperor Aurelius Verus, 744 years. All the years from the creation of the world amount to a total of 5698 years, and the odd months and days.⁵⁴⁵

Aurelius died in 180 AD, and thus subtracting this from the date of 5698 yields 5518 for the years from Adam to the birth of Christ. A date closer to the 5000 BC is that used by Eusebius, one of the only historians who did a

subtraction of three years from 5536, which equals 5533. In another place he writes: "For the Jews, deriving their origin from them as descendants of Abraham, having been taught a modest mind, and one such as becomes men, together with the truth by the spirit of Moses, have handed down to us, by their extant Hebrew histories, the number 5,500 years as the period up to the advent of the Word of salvation, that was announced to the world in the time of the sway of the Caesars (extant fragments, III, 1). In the same fragment, Julius explains that he understands the numbers of Genesis literally. "Adam, when 230 years old, begets Seth; and after living other 700 years he died, that is, a second death (Fragment III); God decreed to destroy the whole race of the living by a flood, having threatened that men should not survive beyond 120 years...For the space of time meant was 100 years up to the flood in the case of the sinners of that time; for they were 20 years old (Fragment IV); Noe was 600 years old when the flood came on. From Adam, therefore, to Noe and the flood, are 2262 years" (Fragment V).

⁵⁴⁴ ANF, Vol. 2, p. 332.

⁵⁴⁵ *To Autolytus*, Book III, Chapter 28.

thorough investigation of the chronologies in the Hebrew, Samaritan and Septuagint texts. In his Chronicle he writes:

From Adam until the second year of Dareius, is 4680 years. And from the second year of Dareius until the 15th year of Tiberius, is 548 years. So the total, from Adam until the 15th year of Tiberius, is 5228 years.

The “15th year of Tiberius” he earlier associates with the baptism of Christ, and his reference to “Augustus” at the birth of Christ agrees with Luke 2:1:

After Augustus, Tiberius became emperor. In his 15th year, the fourth year of the 201st Olympiad [29 AD], our Saviour and Lord, Jesus Christ the Son of God, appeared amongst men.⁵⁴⁶

If we subtract 29 years from 5228 we arrive at 5199 as the date of Adam, according to Eusebius. Interestingly enough, 5199 BC is the date chosen in the Martyrology for Christmas Day.⁵⁴⁷

Hippolytus, as did some of the other Fathers who believed that the world would end in 6,000 years, writes: “Since, then, in six days God made all things, it follows that 6,000 years must be fulfilled.” Expressing a similar idea is the Donatist bishop, Tyconius:

Moreover, just as the whole time is reckoned in the first part of any time period, so also the last hour is reckoned as a whole day, or what is left of a thousand years is reckoned as a thousand years. The world’s age is six days, that is, six thousand years. In what is left of the sixth day, that is, of these 1000 years, the Lord was born, suffered and rose again,⁵⁴⁸

⁵⁴⁶ Eusebius’ Chronicle was penned around 325 AD. It contained a number of chronological tables from early biblical era up to the reign of Constantine. His chronologies were copied from the original Greek into Latin by Jerome, but most of the original Greek has been lost. It was translated from Greek into Armenian before 600 AD., but the oldest known manuscript still in existence was written around the thirteenth century AD. The above text is based on a Latin translation of the Armenian translation which appears in the A. Schoene/H. Petermann’s *Armenium versionem Latine factam*, 1875 edition, p. 131.

⁵⁴⁷ *Catholic Encyclopedia*, 1911 edition, Appleton and Co., vol. 3, p. 732.

⁵⁴⁸ *The Book of Rules*, 5.

THE EXTENT OF THE FLOOD

Fr. Robinson: We have already seen how creationists Whitcomb and Morris admit that there is no way to account for a geographically universal Flood other than by God changing the laws of nature. (p. 221).

R. Sungenis: As we noted previously, this statement of Fr. Robinson's is categorically false. Please refer back to that section for review. Not only do Morris and Whitcomb give a cogent answer using the laws of nature, the most admirable characteristic is they trust Scripture to give the truth of what occurred, as opposed to Fr. Robinson who puts his trust in radiometric dating.

Fr. Robinson: To show why this is the case, I will translate here a summary of the scientific difficulties made by the French Catholic Biblical scholar Vigouroux back in 1926. (p. 221).

R. Sungenis: As I stated earlier, Vigouroux was a French liberal who believed most of Genesis 1-11 was myth and legend. We shouldn't expect anything different from this school than what we read below. These men think like men instead of thinking like God. The simplest difficulty in the biblical text is enough to turn them away from trusting it. These are the one-minute theologians who have no imagination. If they can't figure it out within one minute, they relegate it to fiction. They also don't understand the seriousness of the world's sin that brought on the Flood, an event unparalleled in human history; a condition of mankind so utterly hopeless there was no way to reverse it, except to destroy it all.

Due to the burgeoning of evolutionary science since the time of Charles Darwin's famous book written in 1859, *Origin of Species*, early in the 20th century many Catholic scholars succumbed to modern views on the age and formation of the earth. Other examples include some of the authors in the 1913 *Catholic Encyclopedia*. One such instance appears in the encyclopedia's treatment of the Great Flood. The author, A. J. Maas, tries his best to convince the reader the Flood was merely a local phenomenon. As he denies the traditional view, Maas employs the hermeneutic of the liberal Protestant scholar Julius Wellhausen. This indicates already late in

the reign of Pius X the very modernists he was railing against were making their mark in Catholic biblical studies. These scholars simply refuse to trust the Bible or their own tradition to give historical truth. Maas claims:

Neither Sacred Scripture nor universal ecclesiastical tradition, nor again scientific considerations render it advisable to adhere to the opinion that the Flood covered the whole surface of the earth.

This is quite an assertion. Waving away 1900 years of biblical interpretation and tradition is no small thing. But making astounding assertions, all without proof, is the hallmark of liberal scholarship. The account of the Flood in Genesis 7-9 reads like a newspaper, telling us painstaking details of what occurred, which Maas himself admits was “written by an eye-witness.” In fact, except for genealogical records, there is nothing in Scripture more detailed than the Flood account. Accordingly, nothing in the Genesis account says it was a local flood, but we have clear and distinct indications it had to be worldwide, since the text specifies that the highest mountain was covered by 23 feet of water (Genesis 7:19). No anti-global scholars have been able to explain how all the mountains of a given region can be covered by water, except to posit the mountains were only hills, a substitution not permitted by Hebrew etymology. Water always seeks the lowest point, and thus in a local region the water could never reach the mountains, much less cover them. The only way a mountain-covering deluge could be accomplished is if enough water was present to cover the whole spherical surface of the Earth.

The argument that clouds would not be able to hold enough water to cover the Earth is specious. The Genesis record speaks both of water under the surface of the earth that burst forth, as well as clouds that continually rained on the earth for 40 days and nights.

Regarding the ecclesiastical tradition, there is no Father, except perhaps Hippolytus, who even suggested the Flood of Noah’s day was local. Hence, Maas has no “ecclesiastical tradition” to support his claims and he does not mention even one patristic author who held to the local flood theory. All things being equal, we have more patristic evidence for a global flood than we do the Immaculate Conception and Assumption of

Mary. Despite this voluminous testimony from the Fathers, Maas dismisses it as scant and inconsequential:

As to the cogency of the proof from tradition for the geographical universality of the Flood, it must be remembered that very few of the Fathers touched upon this question *ex professo*.

Maas then says: “Among those who do so there are some who restrict the Deluge to certain parts of the earth surface without incurring the blame of offending against tradition,” yet he fails to name even one patristic witness who did so. Nevertheless, his remark shows Maas is well aware the “tradition” held to a universal flood. Maas then says:

If the Fathers had considered the universality of the Flood as part of the body of ecclesiastical tradition, or of the deposit of faith, they would have defended it more vigorously.

Of course, if the defense is merely a contest between ‘vigorously’ and ‘more vigorously,’ there is no default position for Maas. In any case, the Fathers did not need to defend the universal flood “more vigorously” simply because no one was contesting it.

Maas then tries to make an argument based on the ambiguity of the Hebrew word *erets* (אֶרֶץ) claiming that because it can sometimes be translated “land” instead of “earth,” this gives license to interpret the Flood as local. But the context of Genesis 7-9 does not give any credence toward translating *erets* as land, at least land in only the local sense. Maas must explain how the mountains could be covered with water if the Flood was local. The text is clear: “all the high mountains under the whole heaven (corresponding to the land) were covered.” So not only does Maas insert an unwarranted translation into the text, he introduces an insurmountable geohydrodynamical problem, since it will be impossible to explain how “all the mountains under heaven” in a specific local region can be covered with water without the water also enveloping the rest of the world.

We can see Maas’ liberal bent as he writes in defense of a Protestant who holds to the local flood theory:

It is true that the Congregation of the Index condemned Vossius's treatise *De Septuaginta Interpretibus* [1661] in which he defended, among other doctrines, the view that the Flood covered only the inhabited part of the earth; but theologians of great weight maintained that the work was condemned on account of its Protestant author, and not on account of its doctrine.

Here Maas makes three assertions:

- (1) he more or less minimizes the authority of the Sacred Congregation to make a binding decision against a local flood;
- (2) he enlists the expertise of a Protestant in the face of all the Catholics in his day who were following the tradition of a universal flood;
- (3) he then impugns the motives of the Sacred Congregation and implies that they judged the issue based on prejudice rather than scholarship.

At the least, we can thank Maas for alerting us to the fact that one of the highest authorities in the Catholic Church, the Sacred Congregation of the Index, went on record as denying the local flood theory.

Maas then tries to support a local flood by relying on objections that modern science has forged against a global flood. Maas argues: "First, no such geological traces can be found as ought to have been left by a universal Deluge." We wonder what "traces" Maas thinks "ought" to exist thousands of years after a global Flood. Since he does not specify his concern, he is arguing from silence. If Maas had lived in our day, he would have been made privy to a massive amount of evidence concerning a global flood. For example, as we have seen in the section on Stratigraphy, it has been demonstrated in experiments that sediment adrift in water will settle to the ground in horizontal layers in a matter of days or weeks just as we see it amass in the geologic column all over the Earth. Sometimes whole trees are seen running through the layers of the geologic column, which means the layers had to be formed instantaneously. We also see jagged, curved and slanted layers in the geologic column, which means the layers had to be made instantaneously, and the water pressure had to be great enough to provide the force needed to move these huge layers of

rock, which is something that cannot be done under the aegis of a local flood.

Maas then tries to argue that fitting all the animals into the ark is simply not feasible. Once again, Maas refuses to believe the literal account of the Flood in Genesis 7-9 which, unlike many other biblical narratives, goes through painstaking detail to convince us this event actually did happen as recorded. Yet Maas then says: “but no Catholic has a right to admit Biblical miracles which are not well attested either by Scripture or tradition.” In other words, Maas is trying to make the argument, even if we wanted to believe all the animals went into the ark, we cannot do so by inserting a miraculous intrusion of God into the story. We wonder what Maas would do with a passage such as Genesis 7:16 “...and the Lord closed the door behind him,” showing us that, when necessary, God intruded as He saw fit to do.

In this regard, the narratives of Genesis are not written as if they were describing a ‘day in the life’ of the biblical characters, as it were. Rather, each story focuses solely on the predominant sin event. Both the character development and the plot of the narratives revolve around a major sin event that will create a distinctive ripple in the course of human history. Most of the narratives follow the standard pattern of movement found in a typical Shakespearean play, namely: (1) setting, (2) characters, (3) rising action, (4) confrontation, (5) climax, (6) aftermath, (7) resolution. For the story of Adam and Eve, the demarcations are as follows:

- setting: Gn 1:1-25; characters: Gn 1:26-2:14; rising action: Gn 2:15-25; confrontation: Gn 3:1-5; climax: Gn 3:6-7; aftermath: Gn 3:8-13; resolution: Gn 3:14-24.

The story of Cain and Abel has the same pattern:

- setting: Gn 3:24; characters: Gn 4:1-2; rising action: Gn 4-5a; confrontation: Gn 4:5b-7; climax: Gn 4:8; aftermath: Gn 4:9-12; resolution: Gn 4:13-16.

The same pattern is evident in all the Genesis narratives, some being more pronounced than others (*e.g.*, the story of Joseph and Potipher’s wife:

setting: Gn 39:1; characters: Gn 39:1; rising action: Gn 39:2-6; confrontation: Gn 39:7-10; climax: Gn 39:11-15; aftermath: Gn 39:16-20; resolution: Gn 39:21-23).

The same form is seen in the New Testament (*e.g.*, the story of the demoniac: setting: Mk 5:1; characters: Mk 5:2; rising action: Mk 5:3-5; confrontation: Mk 5:6-10; climax: Mk 5:11-13; aftermath: Mk 5:14-17; resolution: Mk 5:18-20). This internal evidence shows Genesis had one author, Moses, who was guided by the Holy Spirit to put the narrative in this particular form. The opposing view holds:

The ancient, so-called Yahwist source used here [Gn 4:26] employs the name Yahweh long before the time of Moses. Another ancient source, the Elohist...makes Moses the first to use Yahweh as the proper name of Israel's God...⁵⁴⁹

Following Wellhausen's *JEDP Documentary Hypothesis*, the NAB's thesis is the "Elohist," dating from the 9th century BC, wrote Genesis 1, while the "Yahwist," dating from about the 10th century BC, wrote Genesis 2. This theory is beset by the difficulty that Yahweh (יהוה) is not exclusive to Genesis 2 but in every case it appears with Elohim (אלהים).⁵⁵⁰ In Genesis 3, "Elohim" appears singly (Gn 3:1, 3, 5) and in combination with "Yahweh" (Gn 3:1, 8, 9, *etc.*) showing the fluidity of the terminology as opposed to the "era" distinctions of *JEDP*. As Keil argues:

...[this] is no more a proof of different authorship, or of the fusion of two accounts, than the interchange of the names Jehovah and Elohim....That the variations in the names of God furnish no criterion by which to detect different documents, is evident enough from the fact that in Gn 7:1 it is Jehovah who commands Noah to enter the ark, and in *vr.* 4 Noah does as Elohim had commanded, whilst in *vr.* 16, in two successive clauses, Elohim alternates with Jehovah – the animals entering the ark at the command of Elohim, and Jehovah shutting Noah in.⁵⁵¹

⁵⁴⁹ *The New American Bible* (Catholic), pp. 11-12).

⁵⁵⁰ *e.g.*, Gn 2:4, 5, 7, 8, 9, 15, 16, 18, 19, 21, 22; 3:1, 8, 9, 13, 14, 21, 22, 23; cf. Ex 9:30; 2Sm 7:25; 2Kg 19:19; 1Ch 17:16; Ps 59:6; Jh 4:6, *et al.*

⁵⁵¹ *The New American Bible*, p. 144.

The fluidity of Genesis also appears in its use of the word “generations”: (Hb: אֵלֶּה תּוֹלְדוֹתָא, pronounced *eleh toledoth*). The word appears ten times⁵⁵² consisting of five *toledoths* in the flood period (the heavens and earth, Adam, Noah, Noah’s sons, Shem) and five in the Abrahamic period (Terah, Ishmael, Isaac, Esau, Jacob). The *toledoths* are pointing to the generations of the future, not the past. As such, the *toledoth* of Gn 2:4 introduces a sequel to the creation narrative of Genesis 1, not another account, with its primary focus on the entrance of sin into the world and the line of Cain as its primary progenitor. (The second *toledoth*, Gn 5:1, introduces the godly line of Adam-Seth). As Keil notes:

...here the creation of the universe is mentioned as the starting-point to the account of its historical development, because this account looks back to particular points in the creation itself, and describes them more minutely as the preliminaries to the subsequent course of the world.⁵⁵³

From a larger time-line, the whole period from Adam to the Flood is understood as “the original world” (2Pt 2:5) or “the world that then was” (2Pt 3:6), and in this sense the *toledoth* of Gn 2:4 is similar to the Hebrew idioms that employ an introductory statement or event to represent a whole era.⁵⁵⁴ In this way, the “generations of the heaven and the earth” represent the entire ante-diluvian age, with the Flood bringing back the “void and empty” waters of Gn 1:2 over the entire world. As such, God’s choice to put the Earth in darkness and surrounded it by water as his first creation serves as a prophetic remark on the world’s future condition, showing God took into account the coming sin of man before he created him.⁵⁵⁵ All these literary aspects of Genesis show us it is making a grand distinction between the world prior to the flood and the world after the flood. Only a global flood can fit that paradigm:

- 2Pt 2:5: “if he did not spare the ancient world, but preserved Noah, a herald of righteousness, with seven other persons, when he brought a flood upon the world of the ungodly”;

⁵⁵² (1) Gn 2:4; (2) Gn 5:1; (3) Gn 6:9; (4) Gn 10:1; (5) Gn 11:10; (6) Gn 11:27; (7) Gn 25:12; (8) Gn 25:19; (9) Gn 36:1; (10) Gn 37:1.

⁵⁵³ *Commentary on Genesis*, p. 72.

⁵⁵⁴ Cf. Gn 33:18; 35:9; Lv 6:20; Dt 4:46; 23:4; Js 5:4.

⁵⁵⁵ Cf. 2Co 4:4-6; Jr 4:23; Is 24:19; Rm 8:28-30; Ep 1:5.

- 1Pt 3:20: “when God’s patience waited in the days of Noah, during the building of the ark, in which a few, that is, eight persons, were saved through water”;
- Hb 11:7: “By faith Noah, being warned by God concerning events as yet unseen, took heed and constructed an ark for the saving of his household; by this he condemned the world”;
- Is 54:9: “For this is like the days of Noah to me: as I swore that the waters of Noah should no more go over the earth...”

Fr. Robinson (Vigouroux): “The theory of an anthropologically but not geographically universal Flood appears necessary to some in order to cut short the serious objections raised by zoology and physics against an absolute universality of the Deluge.

R. Sungenis: Contrary to Vigouroux, the story of Noah and the ark is a real historical account of a global flood that killed all life on earth, save Noah, his family, the animals inside the ark and various marine life outside the ark. Its historicity is confirmed by the words of Jesus and the Apostles.⁵⁵⁶ Reflecting its authenticity, as noted, Genesis 6-9 reads similar to a detailed newspaper story, complete with characters, numbers, times and dates. Despite this detail and confirmation, modern secular and liberal scholarship has consistently claimed the account is fictional; a recension of prior flood myths that had circulated in the Mesopotamian region. For example, the *NAB* states:

The story of the great flood here recorded is a composite narrative based on two separate sources interwoven into an intricate patchwork....Both biblical sources go back ultimately to an ancient Mesopotamian story of a great flood, preserved in the eleventh tablet of the Gilgamesh Epic.⁵⁵⁷

Similarly, the *New Jerome Biblical Commentary* states:

In Mesopotamian culture, evidently the model for most of the stories in Genesis 1-11, scribes explored beginnings through stories and cosmogonies....The biblical writers have produced a version of a common Mesopotamian story of the origins of the populated world,

⁵⁵⁶ Mt 24:37-39; 1Pt 3:20; 2Pt 2:5.

⁵⁵⁷ *New American Bible*, p. 13.

exploring major questions about God and humanity through narrative.⁵⁵⁸

As such, the *NAB* contradicts the decrees of the 1909 Catholic Biblical Commission, which stated:

Question I: Whether the various exegetical systems which have been proposed to exclude the literal historical sense of the three first chapters of the Book of Genesis, and have been defended by the pretense of science, are sustained by a solid foundation? -Reply: In the negative. (Denz. 2121).

Question II: Whether, when the nature and historical form of the Book of Genesis does not oppose, because of the peculiar connections of the three first chapters with each other and with the following chapters, because of the manifold testimony of the Old and of the New Testaments; because of the almost unanimous opinion of the Holy Fathers, and because of the traditional sense which, transmitted from the Israelite people, the Church always held, it can be taught that the three aforesaid chapters of Genesis do not contain the stories of events which really happened, that is, which correspond with objective reality and historical truth; but are either accounts celebrated in fable drawn from the mythologies and cosmogonies of ancient peoples and adapted by a holy writer to monotheistic doctrine, after expurgating any error of polytheism; or allegories and symbols, devoid of a basis of objective reality, set forth under the guise of history to inculcate religious and philosophical truths; or, finally, legends, historical in part and fictitious in part, composed freely for the instruction and edification of souls? - Reply: In the negative to both parts. (Denz. 2122)

Question III: Whether in particular the literal and historical sense can be called into question, where it is a matter of facts related in the same chapters, which pertain to the foundations of the Christian religion; for example, among others, the creation of all things wrought by God in the beginning of time; the special creation of man; the formation of the first woman from the first man; the oneness of the human race; the original happiness of our first parents in the state of justice, integrity, and immortality; the command given to man by God to prove his obedience; the transgression of the divine command through the devil's

⁵⁵⁸ *New Jerome Biblical Commentary*, pp. 8-9.

persuasion under the guise of a serpent; the casting of our first parents out of that first state of innocence; and also the promise of a future restorer? -Reply: In the negative. (Denz. 2123).

Question IV: Whether in interpreting those passages of these chapters, which the Fathers and Doctors have understood differently, but concerning which they have not taught anything certain and definite, it is permitted, while preserving the judgment of the Church and keeping the analogy of faith, to follow and defend that opinion which everyone has wisely approved? -Reply: In the affirmative. (Denz. 2124).

Question V: Whether all and everything, namely, words and phrases which occur in the aforementioned chapters, are always and necessarily to be accepted in a special sense, so that there may be no deviation from this, even when the expressions themselves manifestly appear to have been taken improperly, or metaphorically or anthropomorphically, and either reason prohibits holding the proper sense, or necessity forces its abandonment? -Reply: In the negative. (Denz. 2125).

Question VI: Whether, presupposing the literal and historical sense, the allegorical and prophetic interpretation of some passages of the same chapters, with the example of the Holy Fathers and the Church herself showing the way, can be Wisely and profitably applied? -Reply: In the affirmative. (Denz. 2126).

Question VII: Whether, since in writing the first chapter of Genesis it was not the mind of the sacred author to teach in a scientific manner the detailed constitution of visible things and the complete order of creation, but rather to give to his people a popular notion, according as the common speech of the times went, accommodated to the understanding and capacity of men, the propriety of scientific language is to be investigated exactly and always in the interpretation of these? -Reply: In the negative. (Denz. 2127).

Question VIII: Whether in that designation and distinction of six days, with which the account of the first chapter of Genesis deals, the word - (*dies*) can be assumed either in its proper sense as a natural day, or in the improper sense of a certain space of time; and whether with regard to such a question there can be free disagreement among exegetes? -Reply: In the affirmative. (Denz. 2128).

There is also Boniface's statement on a global flood:

Certainly Noël had one ark at the time of the flood, prefiguring one Church which perfect on one cubit had one ruler and guide, namely Noël, outside which we read all living things on the earth were destroyed.⁵⁵⁹

The secular historical record shows there exist more than 270 flood accounts throughout various cultures and times, most of which share a common theme and similar characters. The burden of proof is on those who fictionalize the account, for if a great flood never occurred, there is little explanation why so many flood accounts are readily found across the world in all times and cultures, whereas other cataclysms (a huge meteor hitting the earth, stars exploding, *etc.*) are quite rare in the cultural literature.

The similarity between the world's flood accounts and the biblical account are equally astounding. The Hawaiian account, for example, describes humanity as reaching heights of debauchery save for one man it calls Nu-u who made a great canoe to hold his house, family and his animals, after which the whole world was destroyed. All in all, if we take a sample of twenty prominent flood accounts from around the world: (Assyria-Babylon, Persian, Syrian, Asia Minor, Greece, Egypt, Italy Lithuania, Russia, China, India, Cree, Cherokee, Paragon, Aztecs, Peru, Leeward Islands, Fiji Islands, Hawaii) and organize them into twelve categories, there is a 60% agreement among them. The categories include: (1) sins of men; (2) divine wrath; (3) a favored family; (4) an ark for rescue; (5) destruction by water; (6) some humans saved; (7) some animals saved; (8) a world-wide destruction; (9) ark rests on mountain; (10) birds sent out; (11) the survivors worship; (12) divine favor on family. As we would expect, the categories with the most agreement are those containing the salient feature of the drama: #3, #4, #5, #6, #8, which have a 90% agreement.⁵⁶⁰

Several times in the flood account it is stated all of mankind and all of the animals on the earth would be destroyed.⁵⁶¹ Phrases like, "all flesh," "the face of all the earth," "in whose nostrils was the breath of life," "every

⁵⁵⁹ Boniface VIII, *Unum Sanctum*, Nov. 1302, Denz. 468.

⁵⁶⁰ See B. C. Nelson, *The Deluge Story in Stone*, Fig. 38, 1931.

⁵⁶¹ Cf. Gn 6:17; 7:4, 21-23; 8:11-15.

living thing,” *etc.*, are repeated over sixty times in three short chapters. There is not even a suggestion only a local population was affected. Obviously, there would be no need for a huge ark if the flood were merely local, since Noah and his family could have left the region prior to God bringing the flood, the same as Lot and his family would do years later when Sodom and Gomorrah were destroyed. Moreover, in a local flood, only the animals of the region would have been killed while those outside the flood region would continue to populate the earth, and thus there would have been no reason for Noah to board animals on a boat.

Fr. Robinson (Vigouroux): The placement of all the animal species known to exist today with necessary and vastly different provisions for their upkeep for an entire year in an ark proportionately insufficient; the care which their presence required on the part of only eight persons; the need for animals coming from different regions to accommodate themselves to a uniform climate; the re-populating of the entire world, when the migrations of special animals to America and Oceania, for example, have not left any trace, whereas fauna have always been localized and certain animal species have never existed outside their respective regions. survival of freshwater fish and saltwater fish in the mixing of the waters of the rain and the rivers with the waves of the ocean: all of these things create insurmountable difficulties.

R. Sungenis: First, the boat was so big and so complex in structure it took 120 years to build (Gn 6:3), and it was built in dimensions man has discovered are the best for a sea-bearing vessel on a tumultuous trip for one year. Since the ark was designed for floating rather than sailing, its dimensions were rectangular. However, the ark may have had an extension off its stern and a stem protruding from its bow to catch the wind so as to avoid broaching (*i.e.*, being pushed sideways, or tipping over). As for its size, the Hebrew and Egyptian short cubit was 17.5 inches, the Babylonian cubit 19.8”, the Hebrew and Egyptian long cubit 20.4”, and 20.6” respectively, the latter making the ark 515 ft. long × 85 ft. wide × 51 ft. high.⁵⁶²

These dimensions resemble the size and shape of modern cargo ships. An independent study by Seon Hong at the KRISO research center in Daejeon,

⁵⁶² Cf. 2Ch 3:3; Ez 43:13.

South Korea, discovered that of three categories: (1) length for comfort of ride; (2) height for maximum strength; and (3) width for maximum stability, Noah's ark was perfectly balanced in all three.⁵⁶³ Compared to today's vessels, Noah's ark was about two-thirds the size of the steel-framed Titanic and about half the size of the steel-framed Queen Mary II, but it would have been the largest wood-framed boat ever built, five times the size of Columbus' Santa Maria. In contrast, the Gilgamesh Epic depicts a cube-shaped ark, which, according to modern technology, would not be sea-worthy.

The ark was made of "gophir wood" (Hb: עֵצֵי גֹפִיר, pronounced, *etsi gophir*). Some bibles transliterate the second word and translate the first, thus producing "gopher wood,"⁵⁶⁴ most likely cypress wood, and translated as such by the NIV, NRS, NEB, but "resinous wood" by the JB and NJB. The ark was made with "little rooms,"⁵⁶⁵ so that the animals would have their own area of living space. The hull was dubbed with "pitch."⁵⁶⁶ Hebrew used the same word frequently for "ransom,"⁵⁶⁷ and the verbal form for "atonement" (Ex 30:10) or in the sense of "purging,"⁵⁶⁸ suggesting a typology wherein the ark represents the Church and the pitch the blood of atonement. Augustine says the ark is a figure of the cross and of the Church.⁵⁶⁹

Practically speaking, since the pitch was also put on the inside of the ark's hull, it could serve as a deodorizing agent against the pungency of animal manure. Fans driven by beasts of burden could also have been used to accelerate this procedure. Pitch of this variety probably had the ability to be smeared on in malleable form, which would later dry and harden serving as a perfect watertight sealant. All of these minute details, of course, bespeak a huge and complicated vessel of which there would be no

⁵⁶³ worldwideflood.com/ark/hull_form/hull_optimization.htm

⁵⁶⁴ KJV, ASV, RSV, NAS, NKJ.

⁵⁶⁵ Hb: קִנִּיּוֹת, from קָן, 13x, *lit.*, "nest" (e.g., Dt 22:6; 32:11; Jb 39:27; Is 16:2).

⁵⁶⁶ Hb: כֹּפֶר (*kopher*), similar in sound to גֹּפֶר (*gopher*), is related to resin and is translated normally as "pitch," while the LXX has ἄσφαλτος (asphalt) and the Vulgate *bitumen*.

⁵⁶⁷ Ex 30:12; Ps 49:7; Is 48:3.

⁵⁶⁸ Ez 43:20; Ps 79:9.

⁵⁶⁹ *City of God*, 15, 1.

reason to build if there was only a local flood. The only way to counter the evidence for a global flood would be to dismiss the ark and its accouterments as complete fiction.

Additionally, the ark had an “opening,”⁵⁷⁰ referring to a device to allow daylight inside the ark as its primary usage, but also to allow gases to escape, especially methane gas from manure which, since it is half the density of air, would rapidly rise and proceed out the window. The window would most likely have run almost the entire length of the top side of the ark (about 500 feet), built on a frame of one cubit high (~ 20.5”) with a cover mounted on a hinge that allowed it to open and close (Gn 8:13). Underneath the animal cages was probably an elaborate trap and canal system that would allow the fecal matter, which probably amounted to ten or more tons each day, to move and amass in a specialized receptacle for eventual removal overboard.

The ark also had three levels. Keil remarks:

As the height of the ark was thirty cubits, the three stories of cells can hardly have filled the entire space, since a room of ten cubits high, or nine cubits if we deduct the thickness of the floors, would have been a prodigality of space beyond what the necessities required....Hence every objection that has been raised to the suitability of the structure, and the possibility of collecting all the animals in the ark and providing them with food, is based upon arbitrary assumptions, and should be treated as a perfectly groundless fancy.⁵⁷¹

As for the animals, critics have always attacked the authenticity of the flood account at this detail, claiming it would be impossible to fit all the world’s animals, birds, insects, *etc.* on the ark. In the second century, Origen reveals the Gnostic philosopher Apelles boasted the ark could not even hold two elephants.⁵⁷² By the time of Jesuit scholar Athanasius Kircher in 1675, it was assumed many modern species of animals were not on the ark since they were later formed by a divinely-guided changes and

⁵⁷⁰ Gn 6:16: Hb: צִהָרָה, *lit.*, “noon,” 23× in OT (*e.g.*, Gn 43:16, 25; Is 58:10).

⁵⁷¹ *Commentary on Genesis*, p. 143.

⁵⁷² *Homilies on Genesis & Exodus*, R. Heine, Catholic University Press, 1982, pp. 75-75.

adaptations. Today it is understood through the science of Baraminology there may have been as few as 2,000 individual animals on the ark, since many subsequent species of similar animals could have developed from one primary pair (e.g., the wolf, fox, coyote, jackal, dog would have developed from one primary dog-pair). The large gene pool within the primary dog-pair would allow extensive variations of species to develop quite naturally. The flood account specifies the boundaries of variation by the word לַמִּינֵהוּ, “according to its kind” (cf. Gn 1:24f; 7:14).

Regarding the feasibility of housing and caring for the animals, the ark itself could easily hold about 15,000 or so animals, especially since the large majority of the animals were rather small. Larger animals, such as dinosaurs, elephants, *etc.*, would be housed in their infant stages. Keil adds:

As natural science is still in the dark as to the formation of species, and therefore not in a condition to determine the number of pairs from which all existing species are descended, it is ridiculous to talk...of 2000 species of mammalian, and 6500 species of birds, which Noah would have had to feed every day.⁵⁷³

In 498, Pope St. Anastasius II stated: “If, then, previously according to the Scripture He placed order and reason by single species in every individual creature, which cannot be denied...”⁵⁷⁴ Thomas Aquinas said something very similar: “Something can be added every day to the perfection of the universe, as to the number of individuals, but not as to the number of species.”⁵⁷⁵

⁵⁷³ *Commentary on Genesis*, p. 143.

⁵⁷⁴ *The Origin of Souls and Original Sin*, from the epistle *Bonum atque iucundum* to the bishops of Gaul, August 23, 498, (Denz. 170). The remainder of the paragraph states: “...and causally in the work pertaining to the creation of all things at the same time, after the consummation of which He rested on the seventh day, but now operates visibly in the work pertaining to the passage of time even up to the present, let the sound doctrines then rest, namely, that He, who calls those, which are not, just as those that are [cf. Rom. 4:17], imparts souls.”

⁵⁷⁵ *Summa Theologica*, I, Q 118, a 3, ad 1, 2). It is interesting to note that Isaac Asimov’s *Biographical Encyclopedia of Science and Technology*, states of taxonomist Linnaeus (1707-1778): “Linnaeus...fought the whole idea of evolution, stubbornly insisting that all species were created separately in the beginning, that

Although Fr. Robinson says the scientific evidence will not allow evolution, he does side with theistic evolutionists, that is, those who claim an evolutionary process from molecules to man did take place, but under divine direction and intrusion. If so, theistic evolutionists must show, in some credible way, how one species gave rise to other more complex species, and how these species could then sufficiently be altered in their genetic makeup to produce totally different species.⁵⁷⁶ One attempt at evidence is the theistic evolutionist's use Gn 1:24: "Let the *earth bring forth* the living soul after its kind, cattle and creeping things, and beasts of the earth after its kind." The clause "the earth bring forth" is purported to be an indication the earth was the source for the production of these various species, such that God put within the Earth all the necessary ingredients for their evolution. Thus the Earth, for example, by an electrochemical mixing of inorganic elements such as carbon, nitrogen and oxygen, which when ignited by a lightning bolt one day 4 billion years ago, created self-functioning organic compounds which then gave rise to primitive one-celled creatures, which then gave rise to fish, reptiles and birds and finally man.

Not only is this mere conjecture, it is an egregious use of Hebrew grammar. The Hebrew words for "Earth bring forth" are *totsa haarets* (וְתוֹצֵא הָאָרֶץ), the verb being from the Hebrew *yatsah* (יָצָא). In Gn 1:24 the verb simply means the Earth is the *place* upon which God will create the animals, and from which the animals will proceed to roam. The "Earth" is chosen as that which produces them in contrast to the "sea" in *vr.* 21 that produces the fish. In other words, *yatsah* shows only that land is the domain of the animals, as opposed to the sea being the domain of the sea creatures. There is no suggestion of evolution in *yatsah*, especially

no new species had ever been formed since Creation and that none had ever become extinct."

⁵⁷⁶ Fr. Ernest Messenger in *Evolution and Theology*, garners quotes from several Fathers that he believes promote the idea of spontaneous generation, among them are Ephrem, Basil, Gregory of Nyssa, John Chrysostom, Ambrose and Augustine. An analysis of these quotes reveals that none of these Fathers do what Messenger believes they do. Whatever their precise belief, all these Fathers held that the appearance of the species was not over a long period of time in a series of upward movements from lower species, but all happened, as Basil says, "in a moment...by the command of God."

since the verb is not used for any other creature God created. In fact, the use of *yatsah* is no different than the use of the verb *dashah* (הִדַּשָּׂא) in *vr.* 11 (“*Let sprout* the earth tender shoots and the herb yielding seed...”)⁵⁷⁷ or the use of *yatsah* in *vr.* 12 (“And the earth *produced* tender sprouts and the herb yielding seed”). Further, Gn 1:20 states: “And God said, let the waters swarm with the living soul of swarmers.” The verse indicates the water does not evolve living souls of swarmers; rather, the living souls begin to swarm in the waters. The Hebrew for “swarm” is *sharets* (שָׂרַצוּ). It has no causative meaning, as can be seen in other Scriptural usages.⁵⁷⁷

THE MEANING OF THE HEBREW ‘BARA’

Genesis 1:21 states: “God created the great sea creatures and all that creeps having a living soul.” The word for “created” is *bara* (בָּרָא), the same word used in Gn 1:1 (“God *created* the heavens and the earth”) and in *vr.* 27 (“God *created* man in His image”). Seeking support for theistic evolution, Fr. Robinson’s mentor, Stanley Jaki claims:

Moreover, of the forty or so cases when *bara* occurs in the Old Testament, it is used to denote in five cases a purely human action....Of the three other cases the ones in the book of Joshua (17:15, 18) refer in the tense Piel to the cutting down of trees....In Ez 23:47 we see the prophet use *bara* to denote a gruesomely human action, prompted as it could be by Yahweh’s utter displeasure with idolatry....in all these cases the taking of *bara* for an exclusively divine action, let alone taking it for creation out of nothing, can only be done if one deliberately ignores those three uses of it that span more than half a millennium...The verb *bara* means basically “to split” and “to slash” or an action which conveys that something is divided and that the action is done swiftly.⁵⁷⁸

⁵⁷⁷ Ex 8:3 and Ps 105:30.

⁵⁷⁸ *Genesis 1 Through the Ages*, pp. 4-5. The two passages state: “Go up to the forest and *cut down*” (Joshua 17:15-18) and “And the company will stone them...and *cut them down*” (Ezekiel 23:47). It is interesting to note that Jaki seems to have acquiesced this notion from atheistic evolutionist T. H. Huxley. Jaki writes: “...Huxley threw a red herring. He did so by arguing that the bible did not contain the doctrine of creation out of nothing, because the word *bara* could only mean the shaping of something from something already existing” (*Bible and*

Jaki is suggesting that since *bara* means “to split,” such a process implies evolution, apparently because matter is “splitting” from matter and undergoing some kind of subsequent development, as opposed to being created whole out of nothing. Ironically, in the same vicinity Jaki recognizes the majority opinion holds *bara* as meaning creation “out of nothing,” even citing P. Heinisch’s cataloguing of *bara* in the Qal and Nifil stems as evidence.⁵⁷⁹ So what, then, leads Jaki to the conclusion that *bara* “means basically ‘to split’ and ‘to slash’” if it only occurs in three instances out of forty? A hint to Jaki’s reasoning is found in the beginning of the paragraph:

It should seem significant that both in the book of Ezechiel, certainly a post-exilic product, and in the book of Joshua, a product quite possibly some seven hundred years older, one is confronted with a very human connotation of *bara*...uses of it that span more than half a millennium.

So Jaki’s main argument, it seems, is that we should accept the meaning of *bara* as “to split” or “to slash” simply because three uses of the Piel stem are separated by 700 years. As an aside, we will alert the reader to a similar scheme in Jaki’s dating of Ezekiel, wherein Jaki’s view—speaking for the whole of liberal biblical scholarship today—would make the prophecies of Ezekiel regarding the Babylonian captivity mere remembrances of the past rather than predictions of the future. This becomes a handy polemic for Jaki, since he also claims Genesis is a “post-exilic” writing just like Ezekiel. Thus, if someone were to counter Jaki’s thesis by claiming that the same amount years separate the use of *bara* in Genesis meaning created “out of nothing,” from, say, the use of *bara* in Is 40:26, Jr 31:22 where it also means created “out of nothing,” we might be told that the comparison has no merit because Genesis is “post-exilic” just like Isaiah and Jeremiah. In other words, to Jaki, the meaning “created out of nothing” for *bara* is a late development of vocabulary in Israel, at least compared to the supposed indigenous meaning of *bara* as “to split” appearing during the conquest of Canaan. This is so because, to Jaki, Joshua was written long before Genesis was written. All this, of course, is

Science, p. 5; taken from Huxley’s “Mr. Gladstone and Genesis” in *Science and Hebrew Tradition*, p. 187).

⁵⁷⁹ *Genesis 1 Through the Ages*, p. 3.

at best mere speculation and at worst another indication of the overly-enthusiastic exploits of historical criticism to which Jaki and many of his colleagues have fallen victim. For them, there is little actual prophecy in the Bible and thus the definition of words can be juxtaposed to the liking of the modern exegete.

Be that as it may, Jaki's contention about the lexical meaning of *bara* has no merit in itself. First, no Hebrew scholar would determine the "basic" meaning of a Hebrew word from its Piel stem, unless, in the whole Hebrew bible, the word under question only appeared in the Piel stem. The Piel is an intensive form, and one of the more rare in Hebrew due to that causticity. Anytime a Hebrew verb is put in the Piel stem it dramatically changes the meaning of the verb, and even then its final meaning is determined by the context. In the Joshua passage, it refers to "splitting" since that is what happens when trees are hewn down. But the "basic" meaning of a Hebrew word comes from the Qal stem, whereas the Piel is merely the intensive form of the Qal; the Nifil is the reflexive form of Qal; the Hifil the causative form of the Qal, *etc.* It is the case, however, that 71% of the uses of *bara* in the Hebrew Bible are in the Qal stem. Another 19% are in the Nifal stem, but the Nifal doesn't change the meaning of the Qal, only its subject. That leaves the Piel stem hardly in a position to determine the "basic" meaning of *bara*. Moreover, if a "splitting" or a "division" of matter were in view in Genesis 1:1, the Hebrew could have used the verb *badal*, as it does in Genesis 1:4 when God "divides" the light from the darkness.⁵⁸⁰ Catholic theologian, John F. McCarthy adds:

The author gives us here a confused and contradictory interpretation of the verb *bara*. On the one hand, he tells us that *bara* means basically "to split" some pre-existing matter and cannot be taken to mean "to create out of nothing" (*HPR*, p. 32); on the other hand, the whole meaning of Genesis 1, its "bottom line," is that "all came out of the hands of a true Creator" and "when God creates, He creates out of nothing" (*HPR*, p. 32). This interpretation flatly contradicts itself: if Genesis 1 says that "all came out of the hands of a true Creator," then

⁵⁸⁰ בָּרָא the Hebrew perfect tense in this Qal form, used 38x in OT, always refers to God's creative acts (Dt 32:4; Ps 51:10; Is 40:26; 65:18; Jr 31:22), not matter evolving by divine force. If "splitting" were in view וַיְבַדֵּל would be used (so Gesenius' Hebrew Grammer, p. 295f).

bara means that God created the heavens and the earth; if, on the contrary, “neither in Genesis 1 nor elsewhere in the Bible can *bara* be taken” to mean that God “creates out of nothing,” then *bara* in Genesis 1 cannot mean that “all came out of the hands of a true Creator.” This is a matter of simple logic.

McCarthy continues:

There are other problems also with the reasoning of the author. Logically, on the basis of his etymological claim regarding *bara*, he should suggest as the translation of verse 1: “In the beginning God split heaven and earth,” or “In the beginning God slashed heaven and earth,” but instead he begins to look at the context, the fact that it is the omnipotent God Who is acting, and he translates it as “made with the greatest ease.” This, however, is no contribution to the meaning of the verse. What else is to create out of nothing than to create with the greatest of ease and even with a flourish? Has anyone ever supposed that to create out of nothing involves some kind of a struggle?

Moreover, the great exegetes of the past never took the meaning “to create out of nothing” from the mere use of the verb *bara*, but rather from a fuller understanding of its context in the verse. It is the phrase “in the beginning,” signifying at the beginning of time, before which nothing in the universe existed, that causes *bara* to mean “created out of nothing.” The Vulgate uses the word *creavit* (created) in the Latin translation of three verses of Genesis 1: in verse 1 for the creation of the world; in verse 21 for the creation of life in biological beings; and in verse 27 for the creation of man. To understand the context of these three uses of the word *creavit*, it is necessary to recognize two kinds of creation out of nothing. The first kind is *creatio ex nihilo sui et subiecti* (creation out of the nothingness of itself and of a subject). This is the first act of creation recorded in verse 1 - the only place where the Fathers and other traditional exegetes have understood creation out of nothing in the strict sense.

The second kind of creation is *creatio ex nihilo sui* (creation out of the nothingness of itself) from a subject already existing. This applies to the creation of plants and animals from pre-existing matter and the creation of man “from the slime of the earth” in the narrative of Genesis 1. The assumption is that Moses used the special term *bara* for these three instances of creation out of nothing to emphasize also the

fact that the living species of plants and animals and the rational species of man could not have come into existence from lower forms without the first production of these forms from the nothingness of themselves. In each case, the translation of *bara* as created stems from its fuller meaning in the respective sentence.

Etymologies can only be useful clues to the meaning of words in grammatical sentences, and sometimes they are not even that. The specific meaning of words is determined by the grammatical and literary context in which they are used. These two facts regarding etymologies and the specific meaning of words are not correctly handled by the author in his argument for the meaning of *bara* in Genesis 1:1. Having begun with the claim that *bara* has the original meaning of “to split” or “to slash,” he goes on to note three places where this verb is used with human subjects and not as representing acts of God. In Joshua 17:15 and 17:18, *bara* connotes the hacking down of trees, and in Ezekiel 23:47 it means the hacking to pieces of people. Thus, he concludes, “In all these cases, the taking of *bara* for an exclusively divine action, let alone taking it for creation out of nothing, can only be done if one deliberately ignores those three uses of it that span more than half a millennium.”

The author does not say in his book how or from whom he has found out that *bara* means “to split,” but Cornelius a Lapide, in his great commentary on the Pentateuch published in 1616, where he treats Gen 1:1, points out that this idea was already in circulation in the time of St. Jerome. A Lapide brings out that the three verses in Joshua and Ezekiel that were cited as evidence (and which the author also brings forward) do not establish his claim, because in these verses *bara* means, not “to split,” but “to cut down and destroy.” And it is obvious that the opening verse of Genesis 1 does not say, “In the beginning God cut down and destroyed heaven and earth.”

The renowned biblical scholar Augustine Crampon, who is best known for his translation of the entire Bible from the original languages, also edited the Paris edition of the commentaries of Cornelius a Lapide (1857-1863). In a footnote to the comments of a Lapide quoted above, Crampon affirms with Patrizi that “to cut down,” which is the meaning of *bara* in the Piel form occurring in the three verses cited above (Jos 17:15; 17:18 and Eze 23:47) does not necessarily carry the original meaning of the verb. In Gen 1:1, *bara* is in the Qal form, in which form

it is used only with reference to God and for acts reserved to God, such as creation out of nothing, miracles, prophecies of future events, and sublime favors. *Bara* in the Qal form never refers to the fashioning of things from pre-existing material - a mere moulding or shaping of things. Crampon quotes Gesenius (*Thesaurus Philologicus-criticus: bara*) to the effect that modern writers err who persist in trying to trace the Qal meaning of *bara* from an Arabic parallel or from the Piel form, because the Qal meaning is “entirely different and was employed more for the new production of a thing than for the moulding and elaboration of material.” According to Crampon, Gesenius mentions in the same place that some writers invoke the “etymological and proper meaning” of *bara* to claim that in Genesis 1 it means to fashion pre-existing eternal matter, and he draws the following distinction: In the first sentence of Genesis is set forth “the creation of the world from nothing,” while in the rest of the passage the elaboration of the newly created mass is expounded. To Gesenius this relationship of things in the passage is “clear.” Furthermore, the author himself ends up admitting that throughout the Old Testament, “when a mere act of dividing is meant....not *bara* but *badal* is used, tellingly enough” (295-296). Very tellingly, indeed!

The author displays an inadequate knowledge of Hebrew grammar in declaring it “unlikely that a verb, *bara*, can take on a very special meaning (divine action, different as it may be from creation out of nothing) only when it is used in two (Qal and Nifil) of its dozen tenses.” As Gesenius says in the quote given above, different forms in Hebrew denote different meanings. An ample presentation of this fact is laid out in the second English edition of *Gesenius’ Hebrew Grammar* (GHG). “The 3rd sing. masc. of the Perfect in the form of the pure stem (*i.e.* in Qal) is generally regarded, lexicographically and grammatically, as the ground-form of the verb” (GHG, p. 114). “From the pure stem, or Qal, the derivative stems are formed according to an unvarying analogy, in which the idea of the stem assumes the most varied shades of meaning, according to the changes in its form. ... In other languages such formations are regarded as new or derivative verbs” (GHG, p. 115). “The simple form is called Qal (light, because it has no formative additions). ... The common conjugations (including Qal and the passives) are the seven following, but very few verbs exhibit them all: 1) Qal: to kill; 2) Niphal: to kill oneself; 3) Piel: to kill many, to massacre; 4) Pual (passive of Piel); 5) Hiphil: to cause to kill; 6) Hophal (passive of Hiphil); 7) Hithpael: to kill oneself” (GHG, p. 116).

“While the Hebrew verb, owing to these derivative forms or conjugations, possesses a certain richness and copiousness, it is, on the other hand, poor in the matter of tenses and moods. The verb has only two tense-forms (Perfect and Imperfect), besides an Imperative (but only in the active), two Infinitives and a Participle” (GHG, p. 117).

One can easily ascertain from any standard concordance that *bara* is used in the protocanonical books of the Old Testament in only four conjugations (Qal, Niphal, Piel, and Hiphil). Thus, *e.g.*, from *Wigram’s New Englishman’s Hebrew Concordance*, it can be seen that the 38 occurrences of *bara* in Qal mean in every case an act of God that can be translated (at least in the broad sense) by the word “create.” Of the ten occurrences of *bara* in Niphal, all refer to acts of God, of which nine can be translated as “create,” and the tenth as a marvel wrought by God. *Bara* occurs only five times in the Piel form, of which three are the cutting down discussed above, while the text of the other two uses (Eze 21:19 and 21:24) is uncertain. Finally, the one use of *bara* in the Hiphil form (1 Sam 2:29) is also uncertain, but may mean “to make yourselves,” another form of “to make” (RSV). Thus *bara* connotes a divine act in 48 of the 54 times that it occurs in the protocanonical books of the Old Testament, a human act of cutting down and destroying in three places, a making or causing to make in one, and an uncertain meaning in two.

The author arrives at his novel interpretation of *bara* in the following words: “The verb *bara* means basically ‘to split’ and ‘to slash’ or an action which conveys that something is divided and the action is done swiftly. ... In the overwhelming number of its Old-Testament uses *bara* conveys the notion that God did something with marvelous ease and speed. ... Throughout its entire Old-Testament usage, a specific meaning accrues to *bara* only in terms of a broader message about God’s exclusive sovereignty over all.” What the author has done is to take the image of the swinging of an axe or a sword, which he has extracted from the three uses of *bara* in Piel that he has translated as “hacked down,” and applied this to the act of God in Genesis 1:1, with the difference that God acts “with the greatest ease,” so as to do the act “with a flourish.” This process of thought leads to where he wants to arrive, but it is not based in objectivity. Following the rules of Gesenius (cited above), we can make a better conjecture than that. Since the third person singular masculine of the perfect of the Qal form of a Hebrew verb is generally recognized as the ground form of the verb, we take the

Qal form of *bara* to represent its origin. Thus, the original meaning becomes “to make,” and “according to an unvarying analogy,” the Piel form of *bara* comes to mean “to make into many,” and thus “to make into pieces” or “to cut to pieces.” By this reasoning, the swinging of the axe, whether with effort or without effort, has nothing to do with the originating idea of *bara*, and, consequently, the author’s novel interpretation of *bara* as an easy swinging action of God (made with a flourish) falls to the ground.

A SUPERIMPOSED MESSAGE? When the author avers that “a specific meaning accrues to *bara* only in terms of a broader message about God’s exclusive sovereignty over all,” he jumps completely over the examination of the context of the sentence, which the great exegetes of the past have studied so carefully. The notion of “created out of nothing” is, indeed, derived from the use of *bara* in the context of the sentence. The Qal form does not suggest pre-existing matter. If the Piel form of *bara* suggests a bringing into existence as divided and destroyed, the Qal form in Gen 1:1 in the context of the sentence suggests a bringing into first existence as divided from nothingness. The author, while awkwardly abandoning his etymology of *br’* in Qal as “split,” settles on the notion of “with the greatest ease, as with a flourish.” But to pop into existence from nothing is in itself a flourish in the finest sense of the word. God does not need to wield an axe or a sword. To create out of nothing involves no process, no labor, no effort for the only One who can do it. Is not this the sign of the greatest of ease, the most impressive flourish of all? The author’s exclusion of creation out of nothing from the ease with which God acts is entirely arbitrary and lacking in any logical or linguistic foundation.

The author’s idea that “the basic meaning of *creare* was “to grow” (*HPR*, p. 32) is certainly not correct. He explains: “In its basic etymological origin the word ‘creation’ meant the pure natural process of growing or of making something to grow. This should be obvious by a mere recall of the verb *crescere*. The crescent moon is not creating but merely growing.” Lewis and Short, in their authoritative Latin Dictionary, record that *creatio* is a “very rare” noun in classical Latin, but, where it occurs, it means “a creating, producing, begetting,” or “an electing to an office.” The verbal form *creare* (originally *creare*) does not derive from *crescere*, but is kindred to the Sanskrit *kar*, *kri*, meaning “to make,” and was used “very frequently and in every period and species of composition” of classical Latin in the meaning of “to

bring forth, produce, make, create, beget” (Lewis and Short: “creo”). *Crescere* derives from *creare*, and not vice versa. *Crescere* began as the inchoative form of *creare*, and it originally meant of things not previously in existence: “to come forth, grow, to arise, spring, be born, become visible, appear.” Only later did it come to mean by a figure of speech of things already in existence “to grow, increase” (Lewis and Short: “cresco”). Hence, “the basic meaning of *creare*” was not “to grow.”

Since *bara* does not mean basically “to split,” since *creare* has never meant “to grow,” since *bereshith* does mean “in the beginning,” as the author himself ends up admitting (*HPR*, p. 32), since *bereshith bara Elohim*, taken together, means “In the beginning God made,” where in the beginning, as the author again admits, “conveys the absence of anything before,” it is supremely unwarranted of the author to declare that “neither in Genesis 1 nor elsewhere in the Bible can *bara* be taken to mean “created out of nothing” (*HPR*, p. 32). The only place in the Bible where exegetes have traditionally found *bara* to mean “created out of nothing” in the strict and absolute sense (*creatio ex nihilo sui et subiecti*) is in Gen 1:1 (and in passages referring to this verse). And it is utterly without logical consistency for the author to opine: “Of course, when God creates, He creates out of nothing. But neither in Genesis 1 nor elsewhere in the Bible can *bara* be taken in that sense, however sound that sense may be dogmatically, although having no etymological connection with *bara*” (*HPR*, p. 32). The Fourth Lateran Ecumenical Council was using good exegesis of Genesis 1:1, supported by sound hermeneutics and rigorous logic, when it declared in 1215 A.D. that “there is only one true God, ... Creator of all things, ... Who, by His almighty power, from the very beginning of time simultaneously created out of nothing both the spiritual and the corporeal creatures, that is, the angelic and the mundane” (DS, 800).

The meaning of *bara* in Gen 1:1 is to be taken, not specifically from its etymology, but from its use in the sentence. The meaning, “to create out of nothing,” is correctly understood from the relationship of *bara* (to make or produce) with the action of God “in the beginning” and the object of the act, namely, the heavens and the earth. In the process of excluding this meaning, the author omits from his book (and from his following *HPR* article) any grammatical analysis of the sentence as a whole. Instead he leaps directly from an erroneous tracing of the etymology of *bara* and from an incomplete knowledge of Hebrew

syntax to the invented notion of “made with the greatest ease,” an interpretation which once again serves only to impoverish the meaning and dull the incisive thrust of this majestic sentence.

When the author avers that nowhere in the Bible can *bara* be taken to mean created out of nothing, “however sound that sense may be dogmatically,” he raises a doubt regarding the reality of the object of faith. Is it possible that the “creation of the world out of nothing” can be at one and the same time not really asserted in the first verse of Genesis, but, nevertheless, soundly believed to be there on a dogmatic level? In other words, is it possible that this same verse can be both affirming and not affirming the creation of the world out of nothing: not affirming it on the level of solid linguistic analysis, but affirming it on the level of sound dogmatic teaching and theological understanding. This is not possible, because an affirmation cannot both be and not be at the same time. Either the dogmatic interpretation is not sound or the author’s linguistic analysis is not correct.

Yet the author insists upon both contraries. Not only does he tell us that nowhere in the Bible can *bara* be taken to mean “created out of nothing” (see above), but he also affirms that creation out of nothing is a “fundamental Christian dogma.” Here are his words: “While Bernardus (Silvester) professes the divinity of the Word born of the Virgin, he nowhere asserts the fundamental Christian dogma of creation out of nothing. In that too he let himself be ruled by physics. The latter can readily operate without that dogma, which is the very light whereby Genesis 1 ultimately reveals its message.” Here again we have the contradiction: Genesis 1 does not speak of creation out of nothing, but the dogma of creation out of nothing is “the very light whereby Genesis 1 ultimately reveals its message.” To state the contradiction in other words: Gen 1:1 does not say, “in the beginning God created the heavens and the earth,” but the dogma that “in the beginning God created the heavens and the earth” is “the very light whereby Genesis 1 ultimately reveals its message.”

The best that can be said about the author’s message to his readers in these quotations is that it is confused and misleading. He does not seem to recognize the reality of the object of faith, seeing that the dogma of creation out of nothing is simply an authentic interpretation of the reality revealed in Sacred Scripture and stated in particular in the opening verse of Genesis. He does not seem to understand that there is

a continuum of reality between the object of physics and the object of faith. And, as a result, what he seems to conclude is, not only that physics “can readily operate without that dogma,” but also that the dogma can readily operate without any foundation in the reality that is the object of physics.⁵⁸¹

Finally, in regards to speciation, Gn 1:21-25 takes great pains to tell us that all of the sea, air and land creatures are created “in its kind.” In all, these verses repeat the phrase “in its kind” ten times. The redundancy of the phrase is almost annoying, until we realize it is the focal point of the passage in order to get across the unmitigated fact that a species of creatures is totally independent in nature and origin from any other species. In other words, the creatures did not evolve from one species to another, but were specifically created “in their kinds,” or as Vatican I decreed, “in their whole substance out of nothing.” Genesis 1 does not use the language “in their kinds” in reference to the creation of man, of course, since there is only one species of man, which we call *homo sapiens*. There are various species of fish, birds and animals, and thus, since the species are mutually exclusive, it is necessary for this information to be revealed by divine revelation.

The same three-fold division of fish, birds and animals referred to as “their own kinds” appears in the gathering of creatures within Noah’s ark (Gn 6:20; 7:14). The wording also appears in the division of clean and unclean animals in Lv 11:14-19 and Dt 14:13-18, which is used to separate a great variety of birds (e.g., vultures, kites, falcons, raven, ostriches, hawks, gulls, great owls, eared owls). Scientists are well aware of the fact that any cross-breeding among these birds will not produce a hybrid offspring; and if there are any exceptions, the hybrid is sterile and/or malformed. Field and laboratory evidence shows change only happens within kind, never beyond kind. Laboratory experiments on fruit flies under X-rays over many generations did eventually produce a fly with four wings and additional eyes, but what is not usually divulged is such flies could neither fly nor see.⁵⁸² In addition, no one has ever demonstrated, either in theory

⁵⁸¹ J. F. McCarthy, “Not the Real Genesis 1,” March 1994, *Living Tradition*, www.rtforum.org/lt/lt51.html, pp. 6-11.

⁵⁸² Walt Brown writes: “No mutation has ever produced a form of life having greater complexity and viability than its ancestors...More than ninety years of fruit

or practice, how so-called higher transitional forms attain the new genetic hardware they need to function and reproduce their new species.

Also important in this regard is that Noah was told to take seven pairs of clean animals (Gn 7:2). This is given again in *vr.* 3, leaving little doubt as to its authenticity. There are no variants in either the Masoretic text or the LXX, the latter stating: καθαρῶν εἰσάγαγε πρὸς σὲ ἑπτα ἑπτα ἄρσεν καὶ θήλυ (“of clean bring with you seven *and* seven male and female”). Liberal scholarship, following the *JEDP* theory, claims the addition of seven as opposed to two (Gn 6:19) is evidence of contradictions, and thus evidence of historical errors in Scripture. For example, the *NAB* states:

The story of the great flood here recorded is a composite narrative based on two separate sources interwoven into an intricate patchwork....The combination of the two sources produced certain...inconsistencies, such as the number of the various animals taken into the ark (6:19f; 7:14f of the Priestly source, beside 7:2 of the Yahwist source).⁵⁸³

These claims are at best unproven, and at worst a severe indictment on Scripture’s God-inspired veracity. The reason seven pairs of clean animals were gathered is some of the extra pairs would be used as food for the carnivorous animals, while the remainder would allow an acceleration of the clean animal population once they departed from the ark. Since Noah probably did not have more than 2,000 different kinds aboard, and since there was room for over 15,000 animals, the seven pairs of clean animals could have been easily accommodated, especially as their numbers dwindled as the year of the flood transpired. Additionally, Noah probably used some of the clean animals for ritual sacrifice to God.

fly experiments, involving 3,000 consecutive generations, give absolutely no basis for believing that any natural or artificial process can cause an increase in complexity and viability” (*In the Beginning*, p. 6). Charles Darwin himself admitted that his theory would become null and void “if it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications” (*Origin of Species* (6th ed., NY: Hurst and Company), p. 164).

⁵⁸³ *New American Bible*, p. 13.

The *NAB* also claims: “The combination of two sources produced certain duplications (*e.g.*, 6:13-22 of the Yahwist source, beside 7:1-5 of the Priestly source”) but this is also unproven. The pericopes of Genesis 6-9 repeat certain information and add changes because they are:

- (a) reinforcing the historicity of the event, since with repeated details no claim can be made that the account is sketchy, vague or ambiguous,
- (b) giving specific details in later pericopes that were only general in nature in previous.

The pericopes of the flood narrative are: (1) Gn 6:1-4; (2) Gn 6:5-8; (3) Gn 6:9-12; (4) Gn 6:13-22; (5) Gn 7:1-6; (6) Gn 7:7-10; (7) Gn 7:11-24; (8) Gn 8:1-5; (9) Gn 8:6-12; (10) Gn 8:13-19; (11) Gn 8:20-22; (12) Gn 9:1-7; (13) Gn 9:8-17. The same methodology is seen throughout Holy Writ.

MORE ON GLOBAL FLOOD MECHANICS

Fr. Robinson (Vigouroux): On the other hand, in the domain of physics, one can hardly explain the source of the immense mass of water needed to inundate the entire world. The quantity of known water is insufficient. Even without taking into account the crevices and nooks in the Earth's surface, there would have to be a volume of water above sea level of a depth equal to the highest peak of the Himalayas, a height of 8,839 meters. Even if the water was sufficient, the simultaneous submersion of the two hemispheres would be physically impossible. (p. 291).

R. Sungenis: Contrary to Vigouroux, there was certainly enough water to cover the Earth. The Genesis account states there were two sources of water: (1) the rain for forty days and nights, and (2) "all the fountains of the great deep" (Hb: כָּל־מַעְיֵנוֹת הַחַיִּים רַבָּה). The "great deep" refers to the oceans whereas "fountains" (22×, cf. Gn 8:2; Pr 8:28), refers to the means of migrating the ocean waters onto the land, which at this time was probably a Pangaea-type mass. As Keil notes: "Thus the flood was produced by the bursting forth of fountains hidden within the earth..."⁵⁸⁴

If the oceans were the same size as they were then, they already contained enough water by themselves to cover the land mass with at least two miles deep of water; hence, it is just a matter of mechanics to deposit the water on the land mass in a relatively short amount of time (e.g., 40 days). In order to do so, an underground propulsion system (similar to a geyser only much bigger and more numerous), shot the ocean water into the atmosphere on all sides of Pangaea; and the water naturally sought its lowest point and raced toward the center of Pangaea, thus covering all the land.

Since the continental land mass on earth today is only 25% of the earth's surface, the same may have been true for Pangaea. The surface area of the whole earth ($4\pi r^2$) is approximately 200 million square miles, leaving about 50 million square miles of land mass to cover in 40 days, or 125,000 square miles per day. Since the water is coming toward the center from all

⁵⁸⁴ *Commentary on Genesis*, p. 145.

four sides of Pangaea, each side of flood water has about 31,000 sq. miles to cover, which is equivalent to having the water travel 0.37 miles per second for 40 days. The wave speed of today's tsunamis has been clocked close to 0.20 miles per second with only an earthquake as the source of propulsion, which leaves 0.37 (or about 2,000 feet per second) well within the margin for such a huge amount of water in such a cataclysmic environment. Additionally, the science of plate tectonics has shown massive shifting of continental masses could easily tap into the heat energy in the Earth's mantle as the source of the propulsion needed to transfer ocean water to the land mass.

The second source of the water was "the windows of the heavens,"⁵⁸⁵ referring mainly to the dispersion of water whose source originated from the "fountains of the deep" which, as a constantly rising water mist, continually created cloud formations which then rained down water on the land for 40 days.

The Genesis account insists the whole Earth was covered: "and were covered all the high mountains that are under all the heavens."⁵⁸⁶ The phrase "under all the heavens" is sometimes used rhetorically,⁵⁸⁷ and other times used literally,⁵⁸⁸ but the natural physics of a flood in the Ararat region (Gn 8:4) would require it to be a global flood, thus including all the mountains over the face of the earth. As noted, the amount of water presently in our oceans could, if spread out, cover the earth to a depth of over two-three miles, or between 11,000 and 16,000 feet. [NB: The present height of Ararat's highest peak today is 16,916 feet]. In this scenario, since two to three miles of water depth would be the amount of water remaining on earth after the flood, consequently, the height of the world's mountains prior to the flood was probably no greater than 11,000 to 16,000 feet, with some mountains being elevated to their present height sometime during the year-long cataclysm or soon thereafter. This does not necessarily mean the flood waters exceeded 29,035 feet (the present height of Mt. Everest, the world's tallest mountain), since the aftermath of the tremendous pressures

⁵⁸⁵ Hb: וַאֲרַבַּת הַשָּׁמַיִם, *e.g.*, Gn 8:2; 2Kg 7:2; MI 3:10.

⁵⁸⁶ Hb: וַיִּכְסּוּ שְׁלֹשֵׁי הַהָרִים הַגְּבוּהִים אֲשֶׁר־תַּחַת כָּל־הַשָּׁמַיִם

⁵⁸⁷ *e.g.*, Ex 17:14; Dt 2:25; 4:19.

⁵⁸⁸ *e.g.*, Jb 28:24; 37:3; Jr 10:11.

of the flood waters were necessarily responsible for much of subsequent mountain building, ocean basin formation, canyon formation and fossil formation seen today. Interestingly enough, fossils are found in the high points of the Himalaya mountains beyond the boundary of the snow line. Another scenario is Keil's:

But even if those peaks, which are higher than Ararat, were not covered by water, we cannot therefore pronounce the flood merely partial in its extent, but must regard it as universal, as extending over every part of the world, since the few peaks uncovered would not only sink into vanishing points in comparison with the surface covered, but would form an exception not worth mentioning for the simple reason that no living being could exist upon these mountains, covered in perpetual snow and ice.⁵⁸⁹

Once again, the Genesis account insists, very specifically, how high the water rose: “fifteen cubits upwards rose the waters, and the mountains were covered.”⁵⁹⁰ The meaning of both the Hebrew and the Greek is that the water was 15 cubits (app. 307 feet) higher than the mountains. The ark, laden with its weight, probably dipped into the flood waters by about half its height, or about 15 cubits, thus giving it just enough room to pass over the mountains for the first 150 days or five months of its journey (Gn 7:24).

The universality of the flood is also verified by both the amount of time it took the water to accumulate on the Earth (*i.e.*, 40 days and nights) as well as the extended time to remove it from the land mass (*i.e.*, 150 days without decrease; and a decrease for the next 221 days until the 371st day when all the water on the land had been removed (*cf.* Gn 7:11, 24; 8:3, 14). Only a universal flood would require such long lengths of time to accumulate and disperse the water. A local flood would require only a matter of days or weeks to complete the cycle.

⁵⁸⁹ *Commentary on Genesis*, p. 146.

⁵⁹⁰ Hb: חמש עשרה אמה מלמעלה גברו המים וכסו ההרים). The LXX has: Πεντεκαίδεκα πήχεις ὑπεράνω ὑψώθη τὸ ὕδωρ καὶ ἐπεκάλυψε πάντα τὰ ὄρη τὰ ὑψηλά (“Fifteen cubits upwards was the water raised, and it covered all the high mountains”). The *Biblia Hebraica Stuttgartensia* states that the Syriac LXX adds τὰ ὑψηλά (“the high mountains”), *Biblia Hebraica Stuttgartensia*, p. 11.

Some pose the objection it was 74 days *after* the ark rested that ‘the tops of mountains were seen’ and that these were some mountains right around the spot where the ark came to rest. And if the writer meant all the mountains in the world, he should have said the tops of the mountains were seen and *after* this the ark rested on the mountains of Ararat. This is self-evident, for there are mountains all over the world that are higher than any in the land anciently known as Ararat.

In response, Genesis 7:19-20 says the following:

And the waters prevailed so mightily upon the earth that all the high mountains under the whole heaven were covered; the waters prevailed above the mountains, covering them fifteen cubits deep.

Regardless of whether one translates the Hebrew word **הַר** (*har*) as “hill” or “mountain,” the facts remains: (a) *all* of them were covered by 15 cubits of water, and (b) it includes *all* of them that were “under the whole heaven.” Unless one is prepared to say only hills and no actual mountains existed in Noah’s day, one is required to acknowledge *all* the hills and *all* the mountains were covered under the heavens, and the highest elevation on Earth was covered by 15 cubits (at least 307 feet of water). The phrase “under heaven” must include any elevation above ground. Moreover, the Hebrew says **כָּל־הַרִּים הַגְּבוּהִים** (“the high mountains”), showing of all the Earth’s mountains, even the high mountains were covered.

This conclusion is further solidified when the text later refers to a particular “mountain” it has in view a structure the size of Mount Ararat (Gn 8:4), which is much higher than a typical hill. The huge size of Ararat is precisely why the narrative bothers to mention the name of the mountain, that is, so the reader will have a topological and demographical reference point to judge the severity of the Flood. If the ark had come to rest on a hill instead of a mountain, there would be little reason to argue the case for a universal flood. Logically, if the water only went as high as hills, the ark could not end up on a mountain. As it stands, Mount Ararat may be the largest single-mass mountain in the world, since it rises to 17,000 feet from the plains surrounding it at 2,000-3,000 feet. Obviously, no one in recorded history has ever registered a “hill” that is 17,000 feet high.

As for Fr. Robertson's argument that...

If the writer meant all the mountains in the world, he should have said the tops of the mountains were seen and *after* this the ark rested on the mountains of Ararat. This is self-evident, for there are mountains all over the world that are higher than any in that land that was anciently known as Ararat,

...this only begs the question, for who is doing the looking and what is their scope? Let's say for the sake of argument in Gn 7:19 when the narrator says, "all the mountains which were under all the heavens," his perspective is both global and local. We can posit this dual perspective because, scientifically speaking, if the mountains in the Middle East were all covered with water, we would also know the mountains elsewhere on the globe must be covered with water, due to the physics of how water flows, in addition to the fact we find the same results of a general cataclysm all over the world, (*e.g.*, the geologic column). Hence, we can then say in Genesis 8, the view is local, which is why the local mountain, Ararat, is mentioned. Thus it can now be said Genesis 8 is only referring to the tops of the mountains in the local vicinity. This is supported by Noah who is said to look out from the ark and see the water abated (Genesis 8:13). Here's the possible scenario: The bottom of the ark (which was at least 45 feet lower than the top of the ark) would have come to rest on Ararat while Ararat was still covered with water. In other words, we can say, because the ark was heavy, about one half of the ark is submerged in water with its bottom resting on Ararat, while the other half is above the water, but with the whole of Ararat itself still covered with water. Hence, there was still about 300 feet of water to be removed from the earth before the ark did not have any water around its structure. The 300 feet of water was removed in the next three months, which is the reason Gn 8:5 says the tops of the mountains could be seen in the tenth month, which was three months after the ark first anchored itself on Ararat.

All in all, this single verse (Gn 7:20), if taken at face value, proves indisputably the flood was universal, that is, the waters covered the entire face of the Earth. A universal flood was the consensus of the Fathers, medieval theologians, and modern thought at least well into the late 1800s. With the rise of the *JEDP* theory and "biblical criticism" as a whole,

which claimed the numerical details of Genesis 6-8 were mere embellishments that accompanied flood myths originating in the Mesopotamian region, doubts about the flood's universality became common, leading to general doubts about the veracity of Scripture. But the flood's universality remains entirely consistent within the structure of the narrative itself, such that only by dismissing the entire account as fictional (*i.e.*, no flood whatsoever) could any counter-arguments be made. As Keil notes:

To speak of such a flood as partial is absurd [since] even if it broke out at only one spot, it would spread over the earth from one end to the other, and reach everywhere to the same elevation.⁵⁹¹

Since Ararat is over three miles high, in order to cover it the water must have at least been as high. At such a height, the laws of physics would require the water to fill the rest of the earth.

Fr. Robinson (Vigouroux): Such a submersion would bring about a change in the atmosphere which would modify the conditions of life on Earth. (p. 292).

R. Sungenis: Indeed, and this is precisely why the death ages of men dropped considerably after the Flood (but, of course, one would necessarily need to believe the genealogies of Genesis 5 and 11 as accurate history, which neither Fr. Robinson nor Vigouroux do). The average death age of postdiluvian men from Arphaxad to Abraham was about one-fourth to one-ninth of what it was for antediluvian ages between Adam and Shem.

Scientifically, one of the reasons we age faster is due to defects in our DNA. Radiation, such as cosmic radiation, can be a major factor in producing these defects, apart from the defects we inherit from our ancestors. It is highly likely the antediluvian world had an atmosphere that protected the surface of the Earth from cosmic radiation. The amount and size of the flora, as indicated by fossilized plants, proliferated before the Flood. The huge coal beds present today, like those in the Powder River

⁵⁹¹ *Ibid.*

Basin in western United States, would have required enormous amount of plant material in order to form.

Fr. Robinson (Vigouroux): Having recourse to the Almighty divine power in order to explain these impossibilities is to multiply miracles which the sacred narrative does not mention... (p. 292).

R. Sungenis: I find it ironic when it is to his advantage, Vigouroux now decides the scriptural text will be the judge of what occurred during the Flood (“...miracles, which the sacred narrative does not mention”), yet it is precisely the scriptural text he doesn’t believe when it speaks of the detailed events occurring during the Flood. Vigouroux has denied everything from a global flood to animals in an ark, yet these are the very things the scriptural text reveals. This is the typical two-faced liberal approach to Scripture. They will use it as long as it agrees with their preconceived ideas of how the world should work.

In general, when biblical narratives contain miracles, it is usually a combination of natural and miraculous events. God does his part and He allows nature to do its part. For example, in the exodus from Egypt, God casts ten plagues against Pharaoh, but He used both miracles and natural causes. In Ex 10:13-14 it says:

So Moses stretched forth his rod over the land of Egypt, and the Lord brought an east wind upon the land all that day and all that night; and when it was morning the east wind had brought the locusts. ¹⁴ And the locusts came up over all the land of Egypt, and settled on the whole country of Egypt, such a dense swarm of locusts as had never been before, nor ever shall be again.

The first natural event is that Moses stretches his rod toward Egypt. God then brings an east wind on the land for the next 24 hours. At the tail end of the 24 hours, the wind brings locusts upon all the land of Egypt. Obviously, God could have just made the locusts inundate Egypt all at once, which would be a pure miracle, and He could have done so without Moses pointing his rod toward Egypt. Instead, God used the east wind that operates over a 24-hour period before it accomplishes its intended goal. Whatever the exact combination of miracle and natural event, the point is that God uses both in accomplishing the plague.

Another example is when the waters of the sea were separated so the Israelites could cross over dry land. Exodus 14:21-28 records:

²¹ Then Moses stretched out his hand over the sea; and the Lord drove the sea back by a strong east wind all night, and made the sea dry land, and the waters were divided. ²² And the people of Israel went into the midst of the sea on dry ground, the waters being a wall to them on their right hand and on their left. ²³ The Egyptians pursued, and went in after them into the midst of the sea, all Pharaoh's horses, his chariots, and his horsemen. ²⁴ And in the morning watch the Lord in the pillar of fire and of cloud looked down upon the host of the Egyptians, and discomfited the host of the Egyptians, ²⁵ clogging their chariot wheels so that they drove heavily; and the Egyptians said, "Let us flee from before Israel; for the Lord fights for them against the Egyptians." ²⁶ Then the Lord said to Moses, "Stretch out your hand over the sea, that the water may come back upon the Egyptians, upon their chariots, and upon their horsemen." ²⁷ So Moses stretched forth his hand over the sea, and the sea returned to its wonted flow when the morning appeared; and the Egyptians fled into it, and the Lord routed the Egyptians in the midst of the sea. ²⁸ The waters returned and covered the chariots and the horsemen and all the host of Pharaoh that had followed them into the sea; not so much as one of them remained.

So, instead of just dividing the water at once by a pure miracle, God again uses the "east wind" to blow back the water all night long until it finally caused two walls of water so the land became dry between them. As the Egyptians tried to pursue the Israelites, instead of making them disappear miraculously at once, God clogged their chariot wheels to slow them down. He then told Moses to cast his rod over the sea so it would come upon the Egyptians and drown them, which took unto the morning to accomplish.

The same kind of divine/human cooperation appears in the Flood narrative. Just as in the exodus when God talked to Moses and told him what to do, so God talks to Noah,⁵⁹² and God performs certain actions (e.g., God closed the door of the ark in Gn 7:16; God made a wind blow over the Earth to subside the water in Gn 8:1; God smelled the fragrance of

⁵⁹² e.g., Gn 6:3, 5, 6, 7, 13; Gn 7:1; Gn 8:15, Gn 9:1, 8, 15, 17.

Noah's sacrifice and made a promise in Gn 8:21; God made a covenant with Noah in Gn 9:8).

Implicit, of course, in the narrative is the God who can cause an east wind to subside the water is the same God who made it rain and caused the underground water to break through the Earth's crust and caused the oceans to rise above the land—just as he caused the land to rise above the water in Gn 1:9-10: “And God said, ‘Let the waters under the heavens be gathered together into one place, and let the dry land appear.’ And it was so. God called the dry land Earth, and the waters that were gathered together he called Seas. And God saw that it was good.”

Fr. Robinson (Vigouroux): ...and which the principles of prudent exegesis do not permit to be introduced needlessly. (pp. 291-292).

R. Sungenis: What we have found is that “prudent exegesis” is often a code word for theologians who have lost faith in the reality of the biblical narratives; those who are ashamed of the “miracles” of the Bible and who prefer the natural to the divine. These theologians have given themselves the authority to determine when and where God can use miracles, regardless of what the biblical account says or implies.

Fr. Robinson: One who studies carefully and objectively the scientific evidence for heliocentrism, for an ancient Earth, and against a geographically universal Flood discovers the evidence to be compelling. (p. 292).

R. Sungenis: The reality is, Fr. Robinson has neither given compelling evidence to accept his thesis nor reject the traditional view of Scripture given to us by the Fathers and the Magisterium. His treatment of geocentrism v. heliocentrism was academically childish; his biased view of the shaky science of radiometrics was appalling; and his utter disregard for the testimony of Scripture and the Fathers in regard to a global Flood reveals his lack of faith.

THE CHURCH FATHERS ON THE GLOBAL FLOOD

While we are here, I will give a list of the Fathers who write about the Flood issue. They are in total agreement about a global flood during the days of Noah:

Augustine: The Apostle Peter saith this openly: ‘By the word of God the heavens were of old,’ *etc.* He hath said then that the heavens have already perished by the flood: and we know that the heavens perished as far as the extent of this atmosphere of ours. For the water increased, and filled the whole of that space in which birds fly; thus perished the heavens that are near the earth; those heavens which are meant when we speak of the birds of heaven.⁵⁹³

...then shall the figure of this world pass away in a conflagration of universal fire, as once before the world was flooded with a deluge of universal water.⁵⁹⁴

“Let us now see what the Apostle Peter predicted concerning this judgment. “There shall come,” he says, “in the last days scoffers... Nevertheless we, according to His promise, look for new heavens and a new earth, wherein dwells righteousness.” There is nothing said here about the resurrection of the dead, but enough certainly regarding the destruction of this world. And by his reference to the deluge he seems as it were to suggest to us how far we should believe the ruin of the world will extend in the end of the world. For he says that the world which then was perished, and not only the earth itself, but also the heavens, by which we understand the air, the place and room of which was occupied by the water. Therefore the whole, or almost the whole, of the gusty atmosphere (which he calls heaven, or rather the heavens, meaning the earth’s atmosphere, and not the upper air in which sun, moon, and stars are set) was turned into moisture, and in this way perished together with the earth, whose former appearance had been destroyed by the deluge.⁵⁹⁵

For our opponents will not condescend to defend the Hebrew piety, which has won the approbation of their gods, by the words of the

⁵⁹³ *Homilies on the Psalms*, Psalm 77, 30.

⁵⁹⁴ *City of God*, 20, 16.

⁵⁹⁵ *City of God*, 20, 18.

Apostle Peter, whom they vehemently detest; nor will they argue that, as the apostle in his epistle understands a part when he speaks of the whole world perishing in the flood, though only the lowest part of it, and the corresponding heavens were destroyed, so in the psalm the whole is used for a part, and it is said “They shall perish,” though only the lowest heavens are to perish. But since, as I said, they will not condescend to reason thus, lest they should seem to approve of Peter’s meaning, or ascribe as much importance to the final conflagration as we ascribe to the deluge, whereas they contend that no waters or flames could destroy the whole human race, it only remains to them to maintain that their gods lauded the wisdom of the Hebrews because they had not read this psalm.⁵⁹⁶

For with respect also to the fact that He destroyed all men in the flood, with the exception of one righteous man together with his house, whom He willed to be saved in the ark, He knew indeed that they would not amend themselves; yet, nevertheless, as the building of the ark went on for the space of a hundred years...⁵⁹⁷

And thus, as the single family of Noah was preserved through the deluge of water to renew the human race, so, in the deluge of superstition that flooded the whole world, there remained but the one family of Terah in which the seed of God’s city was preserved.⁵⁹⁸

...for it is computed that he lived for fourteen years after the deluge, though Scripture relates that of all who were then upon the earth only the eight souls in the ark escaped destruction by the flood, and of these Methuselah was not one.⁵⁹⁹

And the waters decreased continually until the eleventh month: on the first day of the month were the tops of the mountains seen.” But if the months were such as we have, then so were the years. And certainly months of three days each could not have a twenty-seventh day.⁶⁰⁰

Ambrose: How wise also was Noah, who built the whole of the ark! How just again! For he alone, preserved of all to be the father of the

⁵⁹⁶ *City of God* 20, 24.

⁵⁹⁷ *Catechising the Uninstructed*, Ch 19, 32.

⁵⁹⁸ *City of God*, 16, 12.

⁵⁹⁹ *City of God*, 5, 11.

⁶⁰⁰ *City of God*, 15, 14.

human race, was made a survivor of past generations, and the author of one to come; he was born, too, rather for the world and the universe than for himself.⁶⁰¹

Apostolic Constitutions: for Thou art the Creator of men, and the giver of life, and the supplier of want, and the giver of laws, and the rewarder of those that observe them, and the avenger of those that transgress them; who didst bring the great flood upon the world by reason of the multitude of the ungodly, and didst deliver righteous Noah from that flood by an ark, with eight souls, the end of the foregoing generations.⁶⁰²

Arnobius: When was the human race destroyed by a flood? was it not before us? When was the world set on fire, and reduced to coals and ashes? was it not before us?⁶⁰³

Basil: He separated them from their wives in order that with purity they might escape the flood and that shipwreck of the whole world.⁶⁰⁴

John Cassian: ...and their wickedness increased to such a pitch that the world could only be purified by the flood and deluge.⁶⁰⁵

Clement of Rome: In the ninth generation are born the giants, so called from of old, not dragon-footed, as the fables of the Greeks relate, but men of immense bodies, whose bones, of enormous size, are still shown in some places for confirmation. But against these the righteous providence of God brought a flood upon the world, that the earth might be purified from their pollution, and every place might be turned into a sea by the destruction of the wicked.⁶⁰⁶

Cyril of Jerusalem: For consider what happened in the days of Noe. The giants sinned, and much wickedness was then spread over the earth, and because of this the flood was to come upon them: and in the

⁶⁰¹ *Duties of the Clergy*, Book 1, Chapter 25.

⁶⁰² Book 8, Section 2.

⁶⁰³ *Against the Heathen*, Book 1, 4.

⁶⁰⁴ *The Orthodox Faith*, Book 4, Ch 24.

⁶⁰⁵ *Conferences*, Ch 21.

⁶⁰⁶ *Pseudo-Clement*, Book 1, Chapter 29.

five hundredth year God utters His threatening; but in the six hundredth He brought the flood upon the earth.⁶⁰⁷

Cyprian: Therefore that deluge which happened under Noah showed forth the figure of the persecution which now lately was poured forth over the whole world.⁶⁰⁸

Ephraim: And moreover, God made a flood, and washed the earth, and purged her crimes; fire and brimstone again He sent on her, that He might make white her stains. By fire He gave me the Sodomites, and by flood the Giants.⁶⁰⁹

Gregory the Great: In keeping with the truth of history, what means the fact that at the time of the flood the human race outside the ark dies, but within the ark is preserved unto life.⁶¹⁰

Gregory Nazianzus: And Noah's glory was that he was pleasing to God; he who was entrusted with the saving of the whole world from the waters, or rather of the Seeds of the world, escaped the Deluge in a small Ark.⁶¹¹

Jerome: If at the deluge Noah was delivered, and the whole world perished, all men were flesh, and therefore were destroyed.⁶¹²

Julian Africanus: God decreed to destroy the whole race of the living by a flood, having threatened that men should not survive beyond 120 years.⁶¹³

John Damascene: He separated them from their wives in order that with purity they might escape the flood and that shipwreck of the whole world. After the cessation of the flood, however, He said, Go forth of the ark, thou and thy sons, and thy wife, and thy sons' wives.⁶¹⁴

⁶⁰⁷ *Catechetical Lectures*, 2, 8.

⁶⁰⁸ *Against Novatian*, 5.

⁶⁰⁹ *Nisibene Hymns*, 35.

⁶¹⁰ *Epistles*, Book 11, Epistle 1.

⁶¹¹ *Oration*, 28, 18.

⁶¹² *Against Jovinianus*, 2, 25.

⁶¹³ Fragment IV.

⁶¹⁴ *Orthodox Faith*, 4, 24.

Tertullian: But where—I do not say were Christians, those despisers of your gods--but where were your gods themselves in those days, when the flood poured its destroying waters over all the world.⁶¹⁵

Theodoret: “I will destroy man from the face of the earth,” and this he spake of countless multitudes, and when more than two thousand and two hundred years had gone by after Adam, he brought universal destruction on men through the flood.⁶¹⁶

Theophilus: All the eight persons, therefore, who were found in the ark were preserved. And Moses showed that the flood lasted forty days and forty nights, torrents pouring from heaven, and from the fountains of the deep breaking up, so that the water overtopped every mountain 15 cubits. And thus the race of all the men that then were, was destroyed, and those only who were protected in the ark were saved; and these, we have already said, were eight. And of the ark, the remains are to this day to be seen in the Arabian mountains. This, then, is in sum the history of the deluge.⁶¹⁷

Suffice it to say, no one believed in the universe that Fr. Robinson ascribes to.

Fr. Robinson: Creationists themselves realise this to be the case and so speculate that nature’s laws in past ages were so different that we cannot base scientific inferences about the past on nature’s laws as they are today. (p. 292).

R. Sungenis: As we saw earlier, this thesis of Fr. Robinson’s is nothing but a red herring. No one who believes in a six-day creation or a global flood believes any of the “laws of nature” are set aside. Rather, as God decides when to intrude into the course of human history, he uses His divine power to initiate an event and then allows the laws of nature to take their course. Moreover, Fr. Robinson pretends he knows precisely what the “laws of nature” are, which is far from the case. Anyone who purports to be a scholar of science yet doesn’t know stellar parallax can be explained by both a heliocentric and geocentric system; anyone who doesn’t admit that radiometry and sedimentology give, at best, an uncertain view of

⁶¹⁵ *Apology*, 40.

⁶¹⁶ *Polymorphus*, Dialogue 1.

⁶¹⁷ *Autolykos*, 3, 19.

geologic ages; anyone who claims the world started by a Big Bang yet doesn't admit or deal with the overwhelming obstacles this cosmology presents (see next section), is not someone who can claim he really knows the "laws of nature."

Fr. Robinson: By adopting this stance, however, creationists create a new notion of God, a God Who cannot be found in the Bible whose literal sense they are so anxious to defend, a God Who is arbitrary and inconsistent, one who delights in placing false clues in His own creation that prevent rational humans from discovering its true history. (p. 292).

R. Sungenis: Yes, of course, what would a rejection of your opponent's view be without at least one good jab at his concept of God? For all intents and purposes, Fr. Robinson is accusing those who don't follow his liberal view of the Bible the same as following a false god. This accusation not only applies to the Protestants he attacks, but to the majority of Catholics throughout Christian history who all believed in a six-day creation and a global flood, not to mention geocentrism. It is Fr. Robinson's generation that has turned everything upside down and created a "new notion of God," since everyone before him didn't subscribe to his new "scientific" God.

As for the "literal sense they are so anxious to defend," it is the Catholic Church that Fr. Robinson claims to be his own that is the biggest "offender" of his accusation. The Catholic Church started it all when its Apostles and Fathers interpreted Matthew 26:26 literally ("Take and eat, this is my body"), understanding it as referring to the actual body of Christ. It occurred when this same Church interpreted John 3:5 ("Unless a man be born of water and the Spirit, he cannot enter the kingdom of God") as referring to literal water as the actual means of grace and not as a mere symbol; and again when it interpreted Matt 16:18 ("You are Peter, and upon this rock I will build my Church") as referring to Peter and not a symbol for his faith. These same Fathers applied the same "literal sense they are so anxious to defend" to all of Genesis, at least until leaders in Fr. Robinson's generation claimed "the laws of nature" disallowed the stupendous events in our great biblical narratives by which our children

were so moved, seeing God’s direct and miraculous involvement with the human race.

As for the “God Who is arbitrary and inconsistent,” it is Fr. Robinson’s “God” who clearly displays these aberrations, since Fr. Robinson’s generation is telling us the God Catholicism believed nineteen centuries prior to him is not the same God who is now believed in the 20th and 21st century, all because his generation is “rational” and doesn’t need the “childish stories” that so warmed the hearts of previous Catholics.

As to “placing false clues in His own creation,” this accusation is based on Fr. Robinson’s god-like devotion to modern conclusions in radiometry and sedimentology. Despite the fact that scientific theories change from year to year, Fr. Robinson has bet the house on his belief the Earth is old. He believes, in the face of all the contradictions and anomalies in radiometric dating, it is an irrefutable fact the universe has existed for billions of years. Any man who would place his complete trust in such an uncertain and contradictory science is the very one who is *not* rational. That Fr. Robinson is willing to throw out almost two-thousand years of Spirit-led belief in the face value meaning of Scripture for the mess of conflicting pottage that modern science has given him, simply cannot be a “rational” Catholic.

Fr. Robinson: By all accounts, the creationists seem to be striking a poor bargain: they slay science and the Christian God in order to purchase a literal, scientific truth of a religious text in which God intended to teach us ‘how to go to Heaven, not how the heavens go.’ Much saner and safer is it to save God and science by sacrificing biblicism. (p. 292).

R. Sungenis: Whenever it is convenient for them, advocates of Fr. Robinson’s view of the world often make glib references to a certain Cardinal Baronius who in 1598 is said to have made the following summation of the supposed dichotomy between science and Scripture: “The Holy Spirit tells us how to get to heaven, not how the heavens go.”⁶¹⁸

⁶¹⁸ Galileo wrote it quite poetically in his native Italian to Madama Cristina di Lorena: “...ciò è l’intenzione dello Spirito Santo essere d’insegnarci come si vadia al cielo, e non come vadia il cielo” (“that is the intention of the Holy Spirit

Various strains of this sentiment have been used throughout the last few centuries to silence theologians who seek to extract various truths from Scripture with which to build an understanding of the universe.

Although Scripture certainly does not reach the level of a science book, this does not mean it cannot address scientific issues on various occasions and do so with complete accuracy. Not only do we know this from the fact that the whole Bible is inspired by God, we also know it from common sense. For example, Americans agree that the *Declaration of Independence* and the *United States Constitution* are not religious documents. Most categorize them as political documents. But we accept that when either of the two documents address a matter of religion, such as when the *Declaration of Independence* says: “We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness,” we agree the *Declaration* is giving factual and authoritative statements about religion that form the basis of the country’s foundation of government. The *Declaration* is certainly not a religious treatise, but it does, nevertheless, address important areas of religion, and it holds the same authority in that instance as it does when it speaks about political and governmental issues.

In the same way, although Scripture is not a science book and thus does not employ formulas such as $E = mc^2$ or $F = ma$, nevertheless, when it touches upon an area of science it is giving factual and authoritative statements that form the basis of our cosmogony and cosmology. Discovering the scientific formulas that coincide with those foundational truths has been assigned to man’s labor under the six days God has given him to work by the sweat of his brow, and as such, man’s science can safely complement divine revelation. Revelation does not seek to impinge upon man’s freedoms and intellectual pursuits, but only to save him from the heartache and frustration of proceeding down the wrong scientific path,

which is to teach us how to go to heaven, and not how the heavens go”) and attributes it as coming from “Io qui direi quello che intesi da persona ecclesiastica costituita in eminentissimo grado” (“Here I refer to the understandings of an ecclesiastical person in a very eminent position”), who most suppose is Cardinal Cesare Baronio (*Le Opere di Galileo Galilei*, 1968, vol. 5, p. 319, lines 25-28).

especially in areas regarding the creation of the world that no human being was present to witness, or with the structure of the cosmos from which no man has a high enough platform to determine which bodies are moving and which are not. As Pope St. Pius X (the pope after whose name Fr. Robinson's order, the SSPX, is named, and who required an "Oath Against Modernism" to be signed by all priests in his day), once wrote:

Human science gains greatly from revelation, for the latter opens out new horizons and makes known sooner other truths of the natural order, and because it opens the true road to investigation and keeps it safe from errors of application and of method. Thus does the lighthouse show many things they otherwise would not see, while it points out the rocks on which the vessel would suffer shipwreck.⁶¹⁹

Accordingly, God drops small and precious petals of knowledge down from heaven to guide men in the paths of truth about the cosmos. It is only when we ignore this sweet-smelling flora that we soon go off into the myriad of conflicting theories man has concocted since the time of Copernicus, and which are being added to the unhealthy diet of modern science on a daily basis.

Conversely, some appeal to the statement of St. Augustine: "we do not read in the Gospel that the Lord said: I will send you the Paraclete to teach you how the sun and moon move. Because he wished to make them Christians, not mathematicians."⁶²⁰ But these solemn words actually speak more against Fr. Robinson's case than for it. Notice first that Augustine reaffirms the sun and the moon move, not the Earth. Obviously, Augustine does not intend to go against all the statements he made in his other works affirming the Earth's motionlessness and the sun's movement.

Second, Augustine's concern regards only that the Lord did not intend to teach *how* the sun and moon move in their courses, not that the Lord did not intend to teach that the sun and moon move. That is, the Lord did not desire to give us detailed information as to what pushes or pulls the sun and moon around the Earth, or how it is that they keep such precise time

⁶¹⁹ Pope Pius X, encyclical of March 12, 1904, *Iucunda Sane*, 35.

⁶²⁰ Paul Newall, "The Galileo Affair," The Galilian Manuscripts Library, www.galilean-library.org, p. 8, citing *De Actis cum Felice Manichaeio*, I, 2.

year after year. But we can certainly conclude from the Lord's teaching that the sun and moon *move*. Christians don't have to become "mathematicians" in order to know the simple fact that the celestial bodies revolve around the Earth. God gives us that knowledge by revelation. A child could understand it. Mathematics is necessary only when one wants to calculate such things as how fast the sun and moon accomplish their appointed tasks or how far away they are from Earth. Hence because the Lord taught them in Scripture that the sun and moon move around the Earth, it was for that very reason that St. Augustine and St. Thomas were both geocentrists, in opposition to the Greeks and Indians who were promoting heliocentrism.

The liberal's attempt to commandeer Augustine to support modern cosmology and cosmogony is common among Catholic authors who are seeking some way to counter the magisterium's condemnation of Copernican cosmology and Galileo's support of it in the 1600s. All these attempts, of course, are done in the face of the fact that Augustine believed firmly in geocentrism, a six-day or one-day creation, and a global flood, and defended them vigorously.

Ignoring these facts, modern theologians will often appeal to Augustine's general hermeneutical principles concerning the need to be cautious when science and Scripture seem to clash; or they will take Augustine's comments out of context and make it appear as if he is saying one thing when, in fact, he is saying the exact opposite. For example, Galileo historian, Annibale Fantoli, in his 1997 book *Galileo: For Copernicanism and for the Church*, introduces an argument from Galileo that makes it appear as if Augustine had no commitment or interest in geocentrism and would much prefer dealing with matters of salvation. Fantoli writes:

But, comments Galileo, the mobility or stability of the Earth or of the Sun are not questions of faith or morals, and as to those who uphold the mobility of the Earth none of them has ever wished to abuse the sacred texts by making use of them to bolster his own opinion. And the opinion of the Council, Galileo adds, is in agreement with the attitude of the Fathers who considered it useless to try to solve the problems of nature, as seems to in the case of St. Augustine who, when confronted with the question as to whether the heavens are fixed or move,

answered (*De Genesi ad Litteram*, L.2, c.10): To them I answer that these things should be examined with very subtle and demanding arguments to determine truly whether or not it is so; but I do not have the time to undertake and pursue these investigations, nor should such time be available to those whom we desire to instruct for their salvation and for the needs and benefit of the Holy Church (V, 337; trans. by Finocchiaro 1989, 109).⁶²¹

The problem is that Augustine is not talking about whether the sun revolves around the Earth, or the Earth revolves around the sun. Augustine is concerned only with the question of whether the firmament itself revolves around the Earth or if the stars revolve around the Earth while the firmament remains fixed. Chrysostom posed this very question. He posited that the heavens are immobile, but the sun and stars revolve around a fixed Earth:

The heaven, for instance, hath remained immoveable, according as the prophet says, 'He placed the heaven as a vault, and stretched it out as a tent over the earth.' But, on the other hand, the sun with the rest of the stars, runs on his course through every day. And again, the earth is fixed, but the waters are continually in motion; and not the waters only, but the clouds, and the frequent and successive showers, which return at their proper season.⁶²²

Rest assured, Augustine has no doubts that either the firmament or the stars and sun are revolving around a stationary Earth. As such, we can then understand the context of *De Genesis ad Litteram* L.2, c. 10 more clearly. Augustine writes:

With regard to the motion of heaven, certain Christian writers have enquired whether it is in reality stationary or moving [e.g., Chrysostom]. If it is moving, they say, in what sense is it a firmament? But if it is stationary, how do the heavenly bodies that are thought to be

⁶²¹ Annibale Fantoli, Galileo: *For Copernicanism and the Church*, translation by George V. Coyne, S. J., second edition, 1996, p. 203. In *The Case of Galileo*, 2012, Fantoli says: "And he [Augustine] adds that the sacred writers had no intention to teach anything about the form and figure of the heavens nor about any questions about nature 'since such knowledge was of no use to salvation'" (*The Case of Galileo*, p. 40).

⁶²² *Homilies to Antioch*, Homily XII, PG 49, 128.

fixed in it travel from east to west and the stars of the Wain complete their smaller orbits near the north pole? They present the picture of heaven turning either like a sphere, if we suppose another axis not visible to us extending from another pivotal point, or like a disk, if there is no other axis.

Augustine then states what Galileo quoted above:

My reply is that there is a great deal of subtle and learned enquiry into these questions for the purpose of arriving at a true view of the matter; but I have no further time to go into these questions and discuss them, nor should they have time whom I wish to see instructed for their own salvation and for what is necessary and useful in the Church.

The remaining part of Augustine's paragraph (that neither Galileo nor Fantoli quote from the passage) confirms that Augustine's concern is the question of whether the firmament revolves around a stationary Earth or the stars revolve around a stationary Earth. But in both cases the Earth is stationary:

They must certainly bear in mind that the term "firmament" does not compel us to imagine a stationary heaven: we may understand this name as given to indicate not that it is motionless but that it is solid and that it constitutes an impassable boundary between the waters above and the waters below. Furthermore, if the evidence shows that the heavens actually are immovable, the motion of the stars will not be a hindrance to our acceptance of this fact. The very scholars who have devoted the most exhaustive study to this subject have concluded that if the stars alone were moved while the heavens were motionless, all the known phenomena observed in the motions of the stars might have taken place.⁶²³

Suffice it to say, the attempt by Galileo and his modern supporters to commandeer Augustine to their cause is a typical example of how the great saint's words are often twisted to teach Copernicanism when, in fact, Augustine is teaching the exact opposite. Unfortunately, Augustine's

⁶²³ *The Literal Meaning of Genesis in Ancient Christian Writers*, editor: Johannes Quasten, translated by John Hammond Taylor, S. J., Vol. 1, NY, Newman Press, 1982, pp. 60-61, from Book 2, Chapter 10, Para. 23: "The motion of heaven and the meaning of the firmament."

respect of science is often an easy target for abuse by those seeking to boost the ideas of modern science (e.g., evolution and heliocentrism). In the process, little attention is paid to Augustine's devotion to Scripture as the final authority on such matters and neither are his warnings heeded against the false claims of science. He writes:

But since the words of Scripture that I have treated are explained in so many senses, critics full of worldly learning should restrain themselves from attacking as ignorant and uncultured these utterances that have been made to nourish all devout souls....But more dangerous is the error of certain weak brethren who faint away when they hear these irreligious critics learnedly and eloquently discoursing on the theories of astronomy or on any of the questions relating to the elements of this universe. With a sigh, they esteem these teachers as superior to themselves, looking upon them as great men; and they return with disdain to the books which were written for the good of their souls; and, although they ought to drink from these books with relish, they can scarcely bear to take them up.⁶²⁴

⁶²⁴ *The Literal Meaning of Genesis*, Book 1, Chapter 20, Para. 41, Ancient Christian Writers, *ibid.*, p. 44.

THE BIG BANG AND THE COSMIC MICROWAVE RADIATION

Fr. Robinson: Einstein roundly defeated material infinity, by scientific means, because his General Theory of Relativity requires that the total mass of the universe be finite, a mass for which he himself gave a formula. If the weight of the universe as a whole is finite, then the universe itself must be finite. You would have thought that the scientific community would have breathed a sigh of relief, realizing that the universe went from being a divine, uninvestigatable entity, to being a finite, quantifiable one. Indeed, those were the two alternatives for science. An infinite universe is beyond the reach of empirical investigation, while a finite one is not. Not surprisingly, striking calculations concerning the entirety of the universe have been made since Relativity (p. 362).

R. Sungenis: In reality, what we noted earlier is Edwin Hubble twisted the evidence to conform to his own vision of how the universe should exist. According to Hubble, the universe keeps growing, and his followers insist it does so at multiple times the speed of light. At last count, the universe was said to be 93 billion light years in diameter. Why did they do this? For one reason only: to escape from the evidence that redshifted galaxies show the Earth is in the center of a much smaller and non-expanding universe—the universe more in line with what we read in Scripture. To escape what he called a “horrible” and “unacceptable” Earth-centered universe,⁶²⁵ Hubble took away the Euclidian center and replaced it with a Riemannian two-dimensional surface that expanded. As it stood, he had two choices, and he eliminated the one that would confirm the Bible’s declaration that the Earth is in the center.

As for Einstein, his universe, literally, didn’t know whether it was coming or going. Before Hubble’s discovery of redshift, Einstein’s General Theory of Relativity required the universe to be stable and not expanding. But once Hubble showed the redshift of galaxies would require the Earth to be

⁶²⁵ “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” (*The Observational Approach to Cosmology*, Clarendon Press, 1937, pp. 50, 51, 58).

in the center of a non-expanding universe, Einstein added a fudge factor called the “cosmological constant” to his tensor equation to prohibit an expansion. The formula went from $G = 8\pi T$ to $G - \Lambda = 8\pi T$, wherein Λ represented a factor needed to compensate for the expansion factor in an effort to keep the universe steady and stable. A few years later, when it was found the Λ factor prohibited the universe from expanding at the rate needed by modern cosmology, Einstein removed the Λ and claimed it was “the biggest mistake of my life.”⁶²⁶ This wax nose approach to science is precisely what happens when the Bible’s revelation is ignored. If Hubble had allowed the interpretation of redshift that put the Earth in the center of a non-expanding universe, needless to say, things would be a lot different today.

Fr. Robinson: The universe, then, was showing itself to be finite, expanding, with a beginning in time and a succeeding linear history, all characteristics lining up with the Big Bang theory, as well as the Christian doctrine of Creation in time....From a scientific perspective, it began its infancy at time 0, 13.72 billion years ago, it is now in its middle age, and it is heading toward old age billions of years in the distant future. The triumph of the Big Bang theory was a triumph for science, for the universe corresponding to it can be explored by the scientific mind to an astonishing level of detail. It is a universe with arms wide open to scientific discovery. (pp. 366-367)

⁶²⁶ In an interesting twist, advanced Big Bang cosmology has taken Einstein’s original Λ (*i.e.*, the “cosmological constant” to keep the universe static) and put it on the other side of his tensor equation to represent Dark Energy so that the universe will expand at the needed accelerated rate. So, what was Einstein’s $G_{\mu\nu} - \Lambda g_{\mu\nu} = 8\pi T_{\mu\nu}$ is now the Big Bang’s $G_{\mu\nu} = 8\pi T_{\mu\nu} + \Lambda g_{\mu\nu}$. The term $G_{\mu\nu}$ is the curvature tensor, which is the geometry of Einstein’s ‘spacetime.’ The term $T_{\mu\nu}$ is the stress- or energy-momentum tensor, which represents the precise distribution of matter and energy in the universe. In other words, the geometry of space is curved based on the amount of matter and energy it contains. The term G is the universal gravitational constant. The term $g_{\mu\nu}$ is the spacetime metric tensor that defines distances. The 8π is the factor necessary to make Einstein’s gravity reduce to Newton’s gravity in the weak or minimal field limit. As it stands, in the equation $G_{\mu\nu} = 8\pi T_{\mu\nu} + \Lambda g_{\mu\nu}$, the $\Lambda g_{\mu\nu}$ is Dark Energy and $8\pi T_{\mu\nu}$ is baryonic matter and Dark Matter. Often the term $\Lambda g_{\mu\nu}$ is replaced by $\rho_{\text{vac}} g_{\mu\nu}$, which more accurately represents the energy of the quantum vacuum, whereas $\Lambda g_{\mu\nu}$ is more accurately General Relativity’s concept of spacetime.

R. Sungenis: First, Fr. Robinson refers to “the Christian doctrine of Creation in time” and says that it “lines up with the Big Bang theory.” But there is no such “Christian doctrine.” The only “Christian doctrine” we have of “Creation in time” is what we get from Genesis 1 and the Fathers’ commentary on it, but that narrative of creation is the exact opposite of the Big Bang, since it insists the Earth came first and the stars came later.

Second, when Hubble proposed the expanding universe, the most he could get out of it was 1.5 billion years or less. As Hubble explains it:

The maximum permissible span appears to be of the order of 1,500 million years, but the true value might lie anywhere between the maximum and half the maximum. The initial instant, the t_0 , clearly falls within the life- history of the earth, probably within the history of life on earth. And, as we look back into time with our telescopes, we pass in review from a half to a third of the entire period of expansion.

Thus the familiar interpretation of red-shifts as velocity-shifts lead to strange and dubious conclusions; while the unknown, alternative interpretation leads to conclusions that seem plausible and even familiar [*e.g.*, a non-expanding, Earth-centered universe]. Theories may be revised, new information may alter the complexion of things, but meanwhile we face a rather serious dilemma. Some there are who stoutly maintain that the earth may well be older than the expansion of the universe. Others suggest that in those crowded, jostling yesterdays, the rhythm of events was faster than the rhythm of the spacious universe today [*e.g.*, a change in the laws of nature??]; evolution then proceeded apace, and, into the faint surviving traces, we now misread the evidence of a great antiquity. Our knowledge is too meagre to estimate the value of such speculations, but they sound like special pleading, liked forced solutions of the difficulty. The fundamental question is the interpretation of red-shifts.⁶²⁷

Of course, you will never see this part of Hubble’s struggle discussed in university physics lectures or in *Physics Review*. It’s a well-kept secret that Hubble’s efforts to expand the universe—even if he was correct that redshifts were velocity indicators—would only provide one tenth or less of

⁶²⁷ *The Observational Approach to Cosmology*, pp. 43-44. My comments in brackets.

what the evolutionists and long-agers were demanding from him. How could evolution, and the billions of years it required, be promoted as a theory if the cosmological calculations showed the most favorable interpretation of the redshifts yielded an Earth much older than the universe itself? Hubble, being more honest than the scientists who followed him, admitted he didn't have an answer to what he called "The Dilemma." What this means is the number "13.72-billion-years" Fr. Robinson touts is, according to Hubble himself, nothing but a "special pleading" or a "forced solution" to the difficulty.

Third, Fr. Robinson claims his Big Bang universe is presently "in its middle age, and it is heading toward old age billions of years in the distant future." This speculation goes directly against the Bible's chronology that the span of the universe and the Earth will be very short, probably less than 7,000. We saw earlier, for example, if according to evolution's insistence that *homo sapiens* arrived on Earth at about 300,000 BC, all things being equal, they would have produced two trillion more *homo sapiens* by the year 293,000 BCE. Even if they doubled the population only every 5,000 years (NB: the average for doubling is about 100 to 150 years), they would have had two trillion *homo sapiens* by 100,000 BCE. These facts tell us that Fr. Robinson's universe simply doesn't work. Not only can they not produce a 13.72-billion-year universe from a Big Bang (much less an "old age billions of years in the distant future"), the Earth—the only hospitable environment for the human species ever seen in the universe—simply could not hold its population beyond 10,000 years. Besides that, why Fr. Robinson would want this sin-cursed creation to remain existing for billions of years when every minute it exists it curtails us from the glory of the next world, is anyone's guess. But that is what happens when you mix the world's ideas with God's ideas.

Fr. Robinson: Now, the Big Bang Theory...led to the discovery of a mind-boggling specificity built into the universe's configuration, necessary for the universe becoming habitable by living beings.

R. Sungenis: That the universe is hospitable to "becoming habitable by living beings" goes without saying. It is similar to the claim of the "anthropic principle" by evolutionists (*e.g.*, Lawrence Krauss) as to why we are here, that is, because if the universe wasn't hospitable we would

not be here. This is little more than a juvenile tautology that does nothing to advance the discussion. But what Fr. Robinson leaves out of this tautology is that present Big Bang theory has no way of explaining how the ‘universal hospitality’ originated from a time and chance explosion 13.72 billion years ago. All kinds of tricks have been foisted onto the Big Bang hypothesis in an attempt to make it produce a hospitable universe (inflation, dark energy, dark matter, hyper-expansion, minimum universal density, a flat universe, quantum fluctuations, *etc.*) but even then no one has been able to find the right balance to produce the hospitality the Big Bangers so desperately want to find. Of course, at this point Fr. Robinson might come into the discussion and offer his “progressive creationism” theory wherein God is said to intrude intermittently to turn the Big Bang/evolution development in the right direction when needed, but, as noted previously, this is just another version of the very “God of the gaps” cosmogony that Robinson criticizes others for using.

Fr. Robinson: To illustrate this, let us consider the prediction and discovery of Cosmic Microwave Background Radiation (CMBR)... All matter would somehow start expanding from a single point, developing according to the known laws of physical forces....

R. Sungenis: But isn’t the premise, “All matter would somehow start expanding from a single point...according to the known laws of physical forces,” precisely the problem? What “known law of physical forces” shows how a “singularity” (whatever that is) has the innate power to explode? As we noted earlier, astrophysicist Andrei Linde revealed why many have been forced to the absurd “something from nothing” position:

The first, and main, problem is the very existence of the Big Bang. One may wonder, What came before? If space-time did not exist then, how could everything appear from nothing? What arose first: the universe or the laws determining its evolution? Explaining this initial singularity – where and when it all began – still remains the most intractable problem of modern cosmology.⁶²⁸

⁶²⁸ Andrei Linde, “The Self-Producing Inflationary Universe,” *Scientific American*, Magnificent Cosmos, 1998, p. 99.

Some have claimed the “singularity” explodes due to “quantum fluctuations,” but doesn’t thus merely beg the question as to the origin of the singularity, not to mention the origin of the “law of physics” that there is a “quantum” and that it will necessarily “fluctuate”? Big Bang advocates try to answer this question by claiming the universe has a “zero energy sum”⁶²⁹ so that they can take the next step and claim the universe “came from nothing.” As Lawrence Krauss puts it:

The laws of physics allow the universe to begin from nothing. You don’t need a deity. You have nothing, zero total energy, and quantum fluctuations can produce a universe.⁶³⁰

Leading to his inevitable godless universe, in the same video, the crass Krauss concludes:

You are all stardust. You couldn’t be here today if stars hadn’t exploded...because the elements...carbon, nitrogen, oxygen, iron, all the things that matter for evolution weren’t created at the beginning of time, they were created in the nuclear furnaces of stars, and the only way they could get into your body is if the stars were kind enough to explode. So forget Jesus. The stars died so you could be here today.

In addition, what “law of physical force” shows us this explosion has the innate power to explode 10^{35} times bigger and kdo so in 10^{-35} seconds faster than a normal explosion? As Linde also noted:

Our universe appears smooth and uniform because all inhomogeneities were stretched $10^{10^{12}}$ – that is, a 1 followed by a trillion zeros....This tremendous spurt immediately solves most of the problems of the old cosmological theory.⁶³¹

⁶²⁹ Incidentally, to arrive at zero energy to counterbalance the negative energy of gravity, our universe has only 4% of the needed matter. Additionally, if they were going to use Friedmann’s equations, then a “flat” universe requires that the “critical density” must be equal to the average density. But even adding in 23% Dark Matter and 4% normal matter, this left 73% positive energy still required to counterbalance gravity. Yet another problem was the time needed for the formation of stars and galaxies. Under present calculations it appeared that the age of the universe was younger than the age of its oldest stars!

⁶³⁰ <http://www.youtube.com/watch?v=7Imv1S8PLIo>

⁶³¹ *Ibid.*, p. 101.

But, he realizes this...

may seem too good to be true. Indeed, if all inhomogeneities were stretched away, how did galaxies form? The answer is that while removing previously existing inhomogeneities, inflation at the same time made new ones....The evolution of inflationary theory has given rise to a completely new cosmological paradigm, which differs considerably from the old Big Bang theory and even from the first versions of the inflationary scenario. In it the universe appears to be both chaotic and homogeneous, expanding and stationary. Our cosmic home grows, fluctuates and eternally reproduces itself in all possible forms, as if adjusting itself for all possible types of life.⁶³²

What an amazing universe these godless scientists need in order to make it hospitable to itself and to human life! This universe can do just about anything it needs in order to fulfill the anthropic principle. In fact, it is so omnipotent and omniscient in its planning and purpose it appears to be a god that has all the essential characteristics of the God of Christianity. Imagine that. But as St. Paul says, these kinds of men worship the creation rather than the Creator.⁶³³ Unfortunately, Fr. Robinson joins their chorus when he takes their fantastic theories and tries to mold them into a Christian and biblical framework, which is impossible to do. Scripture says God created the Earth first and the stars later. Any cosmology that ignores this inspired stipulation of Holy Writ is also worshiping the creation rather than the Creator.

Fr. Robinson: Crazy? No, for the radiation was found in 1965 by a pair of engineers....What they discovered was a black body radiation in the microwave part of the electromagnetic spectrum which permeates space and gives it a uniform temperature of 2.73°C [sic] above absolute zero. But is this radiation truly from a time-distant cosmic event? It seems so, for the photons of the CMBR do not match the current state of the universe. They could only have been produced when the universe was much denser and hotter than it is now.

R. Sungenis: First, for the record, we should give the honor of discovering the CMBR (CMB) to Grote Reber rather than Pensias and Wilson (1963).

⁶³² *Ibid.*, p. 102.

⁶³³ Romans 1:18-20.

His discoveries of the CMB in the early 1940s were widely published in many peer-reviewed journals.⁶³⁴ Second, Fr. Robinson's reference to the origin of the CMB as "from a time-distant cosmic event" does not prove or even suggest a Big Bang 13.72 billion years ago as the source. As we noted earlier, if one were to apply what Genesis and Isaiah say about both the Light of Day 1 and the firmament and its stretching out on Day 2, we have the makings of a CMB on the order of the 2.75°K temperature we see today. Since the Light of Day 1 surrounded the millions of miles of water that enveloped the tiny seed of Earth, and since both the Light and the water were stretched out to the boundary of the heavens, both exist today at the rim of the universe. Depending on how far from the water the Light was placed originally, the Light's heat melted the ice sphere and was then stretched out to the edge of the universe. With such a massive diffusion of its energy, the Light could settle on a temperature of 2.75°K for the rest of creation and to the present day. In fact, the final temperature would be determined by the amount of stretching, and thus the universe could be made as big as needed to arrive at 2.75°K. Since this temperature is so low, it could only exist in the microwave range we see today. In other words, there is no need for a secular Big Bang since Genesis has its own "Big Bang"—the stretching out of the Light with the firmament—that occurred approximately 6000 years ago by divine fiat.

Fr. Robinson: Thus, the CMBR 'has turned out to be a sort of cosmic "Rosetta stone" on which is inscribed the record of the Universe's past history'. [citing *The Privileged Planet*, by Gonzales and Richards, p. 176].

R. Sungenis: The CMB could certainly be classed as a "cosmic Rosetta stone," but not for the reasons Fr. Robinson describes, nor that of Gonzales and Richards who suffer from the same disease of trying to make the

⁶³⁴ Some of Reber's work in this area includes the following: "Cosmic Static at 144 meters wavelength," *Journal of the Franklin Institute*, vol. 285 (Jan. 1968), pp. 1-12; "Cosmic Static," *Proc. IRE*, 28, 68 (1940); "Cosmic Static," *Astrophysical Journal*, 91, (1940) p. 621; "Cosmic Static," *Proc. IRE*, 30, 367 (1942); "Cosmic Static," *Astrophysical Journal*, 100, 279 (1944); "Cosmic Radio Noise," *Radio-Electronic Engineering*, July 1948; "Cosmic Static," *Proc. IRE*, 36, 1215, (1948); "Cosmic radio-frequency radiation near one megacycle," G. Reber and G. R. Ellis, *Journal of Geophysical Research*, 61, 1 (1956).

secular Big Bang theory fit into Genesis. Since we know when the biblical “expansion” occurred (*i.e.*, ~6000 years ago); and since we have the genealogies of Genesis 5 & 11 to pinpoint the time of Adam and creation, God has certainly given us a “cosmic Rosetta stone.”

Fr. Robinson: That is not all, for the CMBR has subtle fluctuations, which have been carefully measured by space probes, providing scientists with a detailed temperature map of space [citing Trefil, *Space Atlas*, pp. 262-263]. From this data, ‘cosmologists can extract at least ten cosmological parameters’. [citing Gonzales, p. 175]

R. Sungenis: Since these are his final words on the CMB, we see that Fr. Robinson is determined to leave out the most important “parameter” of the CMB, that is, the CMB temperature “fluctuations” show the Earth is right smack in the center of the universe. That Fr. Robinson, knowing this “parameter” exists, and at the very least, discussed and admitted by some of today’s top cosmologists, yet doesn’t give it even a casual mention, strongly suggests an agenda behind this man’s apologetic to conceal the geocentric truth plainly evident before his eyes. As our movie, *The Principle*,⁶³⁵ covered in painstaking detail, at the least, the CMB shows what has come to be known as “The Axis of Evil,”⁶³⁶ a microwave radiation axis that stretches from one side of the universe to the other with the axis aligned with the Sun-Earth ecliptic at 23.5 degrees from the north celestial pole. So astounding is this line-up of the Earth with the rest of the universe that secular cosmologist Lawrence Krauss of Arizona State University (no friend to geocentrism) said two years after its discovery the following astounding statement:

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

⁶³⁵ *The Principle*, released from Rocky Mountain Pictures in October 2014, playing in selected US cities at AMC and Regal Cinemas. Creator and executive producer: Robert Sungenis; producer and writer: Rick Delano; director: Ktee Thomas; narrator: Kate Mulgrew; starring: Michio Kaku, Lawrence Krauss, Max Tegmark, George F. R. Ellis, Bernard Carr, *et al.*

⁶³⁶ Coined by Kate Land and João Magueijo, “The axis of evil,” Theoretical Physics Group, Imperial College, London, Feb. 11, 2005, p. 1. See also: “Axis of Evil Warps Cosmic Background,” Marcus Chown, *New Scientist*, October 22, 2005, pp. 19ff.

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.⁶³⁷

This was not the first time Krauss contemplated a geocentric universe as a solution to the data. He reluctantly admitted the geocentric implications when he commented in *USA Today* on a paper by Temple & Smoller showing equations that make Dark Energy superfluous. Krauss concluded that the only way the equations could work is if the Earth is "literally at the center of the universe, which is to say the least, unusual."⁶³⁸

⁶³⁷ "The Energy of Empty Space is not Zero. http://www.edge.org/3rd_culture/krauss06/krauss06.2_index.html

⁶³⁸ "Mystery Solved: Dark Energy Isn't There", Dan Vergano, *USA Today, Science and Space News* (Aug 2009). Temple and Smoller posit that our galaxy sits inside an expansion wave or ripple of space with a very low density. The wave is said to be caused by the Big Bang which, when it moved through the universe, created a low density ripple several tens of millions of light years across and which now envelops the Milky Way. The matter trapped in the front of the wave was pushed outward, which later formed stars and galaxies. When light from these stars reaches Earth, it appears much dimmer than expected because the stars are farther away from us than they would have been if the density wave had not pushed them outward. This model is then used to explain why, without the benefit of an accelerated universe courtesy of Dark Energy to propel it, the distance of supernovae measured in 1998 was so much greater than expected. (Proceeding of the National Academy of Sciences, August 2009). Our interest here is twofold. First, despite the Big Bang origin of the Temple and Smoller void area, the geocentric model is very favorable to the void area concept. Second, we note the adversity to their theory from notable cosmologists simply because it does not follow the dogmas of the Copernican Principle and the Friedmann "homogeneity" solutions to Einstein's equations. As Dragan Huterer of the University of Michigan complained: "We want homogeneity in the equations, because that's what we observe in the sky...You have to wonder why we are in the middle of this [ripple]? Why not somebody else." Alexey Vikhlinin of Harvard-Smithsonian Center for Astrophysics stated: "The price that has to be paid is a violation of the

In 2007, Dragan Huterer of the University of Michigan published a paper in *Astronomy* magazine titled, “Why is the Solar System Cosmically Aligned.”⁶³⁹ Huterer, although speaking with Copernican glasses, writes of the startling data found by the Wilkinson Microwave Anisotropy Probe (WMAP):

Developing the multipole vectors allowed us to examine how the CMB’s large-scale features align with each other and the ecliptic – the plane of Earth’s orbit around the sun....Not only are the quadrupole and octopole planar, but the planes are nearly perpendicular to the ecliptic....The likelihood of these alignments happening by chance is less than 0.1 percent....Why CMB patterns are oriented to the solar system is not at all understood at this time.⁶⁴⁰

In a 2010 paper, the team is even more astounded at the Earth-centered results of WMAP. In this study, galactocentrism (of the Milky Way) is eliminated in favor of a geocentric explanation:

Particularly puzzling are the alignments with solar system features. CMB anisotropy should clearly not be correlated with our local habitat. While the observed correlations seem to hint that there is contamination by a foreground or perhaps by the scanning strategy of the telescope, closer inspection reveals that there is no obvious way to explain the observed correlations. Moreover, if their explanation is that they are a foreground, then that will likely exacerbate other anomalies that we

Copernican Principle...” (Ker Than, “Dark Energy’s Demise? New Theory Doesn’t Use the Force,” *National Geographic News*, August, 18, 2009).

⁶³⁹ Dragan Huterer, *Astronomy*, Dec. 2007, pp. 38-43.

⁶⁴⁰ “Large-angle anomalies in the CMB,” Craig J. Copi, D. Huterer, D. Schwarz, and G. Starkman, Nov. 12, 2010, arXiv:1004.5602v2, p. 43. See also *Scientific American*, December 9, 2011 article titled “Universal Alignment: Could the Cosmos Have a Point” by Michael Moyer, which makes reference to Huterer’s findings, stating: “The universe has no center and no edge, no special regions ticked in among the galaxies and light. No matter where you look, it’s the same – or so physicists thought...hot and cold spots speckle the sky....Cosmologists have called it the ‘axis of evil.’” Likewise, Federico Urban and Ariel Zhitnitsky state “Similarly, one can employ different vectorial and tensorial decompositions of the multipoles to see that there is a very easily identifiable preferred axis, the cosmological dipole once again; that is, the normal vectors to the planes determined by the quadrupole and the octupole (there are four of them) point all in the same direction, that of the ecliptic and equinox” “The P-Odd Universe,” University of British Columbia, July 13, 2011, p. 2.

will discuss in section IVB below. Our studies indicate that the observed alignments are with the ecliptic plane, with the equinox or with the CMB dipole, and not with the Galactic plane: the alignments of the quadrupole and octopole planes with the equinox/ecliptic/dipole directions are much more significant than those for the Galactic plane. Moreover, it is remarkably curious that it is precisely the ecliptic alignment that has been found on somewhat smaller scales using the power spectrum analyses of statistical isotropy.⁶⁴¹

In a 2012 paper, there is no deviation from their previous conclusions, although perhaps some hand-wringing.

We will discover that if one uses the full-sky ILC map then one finds very odd correlations in the map, that correlate unexpectedly to the Solar System....Looking into this anomaly more deeply we will find

⁶⁴¹ “Large-angle anomalies in the CMB,” Craig J. Copi, D. Huterer, D. Schwarz, and G. Starkman, Nov. 12, 2010, arXiv:1004.5602v2. A Wikipedia article tries to pin the anomalies on foreground contamination: “Later analyses have pointed out that these are the modes most susceptible to foreground contamination from synchrotron, dust, and free-free emission, and from experimental uncertainty in the monopole and dipole. A full Bayesian analysis of the WMAP power spectrum demonstrates that the quadrupole prediction of Lambda-CDM cosmology is consistent with the data at the 10% level and that the observed octupole is not remarkable. Carefully accounting for the procedure used to remove the foregrounds from the full sky map further reduces the significance of the alignment by ~5%” (http://en.wikipedia.org/wiki/Cosmic_microwave_background_radiation). This still leaves the fact that the Big Bang model is only consistent with CMB anisotropy by, at most, 15%, which leaves 85% non-consistent. This is nothing to brag about, especially since it would require the Big Bang model to be based on nothing more than foreground contaminated evidence. Moreover, the Wikipedia sources for foreground contamination (footnotes 71-75) are old, ranging from 2004 to 2006. Since then, foreground contamination has been ruled out, as noted in Copi’s *et al.*, 2010 paper. As for percentages, Copi shows they are worse than 85% for the Big Bang: “The study of alignments in the low- ℓ CMB has found a number of peculiarities. We have shown that the alignment of the quadrupole and octopole planes is inconsistent with Gaussian, statistically isotropic skies at least at the 99% confidence level. Further a number of (possibly related) alignments occur at 95% confidence levels or greater” (*ibid.*, p. 6). Hence, Copi’s 2010 paper answers the 2005 paper by Chris Vale titled, “Local Pancake Defeats Axis of Evil,” who claims the Axis is the result of “weak lensing of the CMB dipole by large magnitude.” See also “Significant Foreground Unrelated Non-Acoustic Anisotropy on the 1 Degree Scale in WMAP Probe 5-Year Observations,” Bi-Zhu Jiang, et al., Jan. 2010.

that it remains robust through all seven years of published WMAP data...

...quadrupole planes and the three octopole planes, implying that not only are these four planes aligned but they are nearly perpendicular to the ecliptic. Furthermore the normals [perpendicular vectors] are near the dipole, meaning that the planes are not just aligned and perpendicular to the ecliptic but oriented perpendicular to the Solar System's motion through the Universe....However one does the statistical analysis, these apparent correlations with the Solar System geometry are puzzling. They do not seem to reflect the Galactic contamination that we might have expected from residual foreground contamination in the ILC map....For one, the observed quadrupole and octopole are aligned....This makes it difficult to explain them in terms of some localized effect on the sky....The best one can say is that these full-sky solar-system correlations remain unexplained.

The CMB anisotropies are analogous to the warm and cool spots in the Earth's ocean being aligned with the Earth's equator and its 23.5-degree ecliptic angle, except in this case we are speaking of the whole universe, an astounding phenomenon, predicted by no model, except the Tyconic geocentric.

Additionally, the same Michigan team emphasizes several times in their paper that the CMB anisotropy does not match that which is predicted or accepted in the Big Bang model.

...and furthermore that it is very difficult to explain within the context of the canonical Inflationary Lambda Cold Dark Matter of cosmology [*i.e.*, the Big Bang]....Our first observation is that none of those data curves look like the [LCDM] theory curve....It is extremely difficult to arrange for the C_ℓ to have particular relative values in the context of the standard inflationary model...the observed sky, at least the part outside the Galaxy cut, seems not to respect the fundamental prediction of the standard cosmological model that the $a_{\ell m}$ are independent random variables...for the lowest multipoles and the largest angular skies, the

observations disagree markedly with the predictions of the [Big Bang] theory.⁶⁴²

Not only is there an “Axis of Evil” alignment of the CMB with our 23.5-degree ecliptic, there is also a CMB alignment with the Earth’s equinoxes (equator). Already in 2004, the Michigan team noticed the alignment. Although they always describe the evidence in Copernican language (since they are Copernicans), we can look at it geocentrically since the whole universe is aligned with Earth and no other object:

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 [perpendicular vectors] 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.⁶⁴³

At this point in time, however, the equinox axis is hushed up, even by those who admit to the ecliptic axis. It is called the “dipole” axis. The

⁶⁴² “The Oddly Quiet Universe: How the CMB Challenges Cosmology’s Standard Model,” Glenn D. Starkman, Craig J. Copi, Dragan Huterer, Dominik Schwarz, January 12, 2012, acXiv:1201.2459v1.

⁶⁴³ Dominik J. Schwarz, Glenn D. Starkman, Dragan Huterer and Craig J. Copi, “Is the Low- ℓ Microwave Background Cosmic?” *Physical Review Letters*, November 26, 2004, pp. 221301-1 to 4. The same phenomenon is reiterated in their 2005 paper, “On large-scale anomalies of the microwave sky,” *Monthly Notices of the Royal Astronomical Society*; and their 2010 paper, “Large-angle anomalies in the CMB,” and begin it with an obvious reaffirmation that all data will be interpreted through the grid of the “Copernican Principle...that the Earth does not occupy a special place in the universe...” (p. 1), but at the same time admit: “These apparent correlations with the solar system geometry are puzzling and currently unexplained...the quadrupole and octopole are orthogonal to the ecliptic at the 95.9% CL [confidence level]...a systematic that is indeed correlated with the ecliptic plane...the normals to these four planes are aligned with the direction of the cosmological dipole (and with the equinoxes) at a level inconsistent with Gaussian random, statistically isotropic skies at 99% CL” (p. 5).

reason for their silence is plain. If they were to publicize that the CMB is also aligned with our equator, this would mean the universe is inscribed by an X, one line being the ecliptic alignment of the CMB; the other line being the equatorial alignment of the CMB, which puts Earth in the center of the intersection. Additionally, as we will see momentarily, they would have to admit the Earth is motionless in space.

Since they are still trying to overcome the shock of the first “Axis of Evil,” they presently claim the dipole axis is created by the orbit of the sun/earth around the Milky Way wherein the Earth’s movement through the CMB causes a blueshift at the forefront and a redshift on the opposite side of the Earth, thereby making a “dipole.” Unfortunately for them, two other dipoles have been discovered, both of which have very different velocities than the CMB, one being four times faster. As such, the solution cannot be that the dipole is caused by a moving Earth, since obviously it could not yield three different speeds. The only way the dipole anisotropy can have three different speeds is if the radiation is hitting a fixed Earth at three different speeds.⁶⁴⁴

⁶⁴⁴ “Dipole anisotropy in flux density and source count distribution in radio NVSS data,” R. Kothari, A. Naskar, P. Tiwari, S Nadkarni-Ghosh and P. Jain, July 8, 2013, Dept. of Physics, Indian Institute of Technology, Kanpur, India, at arXiv:1307.1947v1. Kothari, *et al*, shows that attributing the dipole to the presumed motion of the solar system through the CMB does not match the CMB data. They first report a paper by Singal (2011) showing an apparent solar velocity of 1600 km/sec, which is about four times higher than the previously accepted 369 km/sec, and which “suggests a potential violation of the cosmological principle” and thus “the Universe may be intrinsically anisotropic with the preferred axis approximately in the direction of the CMBR dipole.” With additional research, they conclude “the data is not consistent with the CMBR dipole. It clearly indicates the presence of an intrinsic dipole anisotropy which cannot be explained in terms of local motion,” which result is confirmed at a “4 – 5 sigma” level. This leads them to the conclusion that the “anisotropy we observe may have a physical origin.” In other words, even if one were to adopt the heliocentric concept that the solar system is moving through a fixed CMB, the data shows it would be moving much too slowly to produce the dipole that is observed. The dipole energy, then, must originate from an inherent microwave polarity in the composition of the Universe and thus means the Universe is physically divided in two along the Earth’s equator. The concluding sentence of the paper states: “Finally, assuming the presence of an intrinsic dipole contribution in the source counts, we separate it out from the kinematic dipole. The resulting speed of the solar system, however, is

Thus the Indian astrophysicist, Rahul Kothari, understood the dipole data to be “a potential violation of the cosmological principle” such that “the Universe may be intrinsically anisotropic with the preferred axis approximately in the direction of the CMBR dipole.” In other words, if the universe is “intrinsically anisotropic” then there can be no cause for the dipole except the makeup of the universe itself. That is, the universe has a built-in alignment with the Earth; and, consequently, solar motion plays no role in the dipole. Kothari’s team reiterates this point saying,

The data is not consistent with the cosmic microwave radiation dipole. It clearly indicates the presence of an intrinsic dipole anisotropy which cannot be explained in terms of local motion,

...which result is confirmed, Kothari says, at a “4 – 5 sigma” level. This leads them to the conclusion that the “anisotropy we observe may have a physical origin.” In other words, the dipole energy must originate from an inherent microwave polarity in the composition of the universe itself. This means the universe is physically divided in two hemispheres along the Earth’s equator.

The study by Kothari was confirmed by Matthias Rubart and Dominik Schwarz in a paper of July, 2013, on the “Cosmic Radio Dipole.” They show the amplitude of the radio dipole is “inconsistent with the assumption of a pure kinetic origin (i.e., the sun/earth orbiting the Milky Way) of the radio dipole at 99.6% confidence level.” In other words, they are almost 100% certain that the dipole axis is inherent in the universe and not an artifact of solar motion.⁶⁴⁵

A non-kinetic dipole has also been confirmed by Ashok K. Signal’s paper of May, 2013, titled: “Is there a violation of the Copernican Principle in radio sky?” He states the following:

However the present [dipole] anisotropies could not be caused by a motion of the solar system as it could not give rise to different anisotropies for different objects....Further, observer’s motion cannot

still found to be higher than the CMBR expectation. Our results support the hypothesis that the Universe is intrinsically anisotropic with the anisotropy axis pointing towards Virgo” p. 10.”

⁶⁴⁵ <http://arxiv.org/pdf/1301.5559.pdf>

in any case explain the very different radio size distributions of quasars and radio galaxies in the two regions. There is certainly cause for worry. Is there a breakdown of the Copernican principle as things seen in two regions of the sky divided purely by a coordinate system based on earth's orientation in space shows a very large anisotropy in source distribution? Why should the equinox points and the North Celestial Pole have any bearing on the large-scale distribution of matter in the universe?⁶⁴⁶

We also notice from Singal's above paragraph that distant quasars and radio galaxies form a third axis with the North Celestial Pole, more or less giving a three-dimensional x, y, z graph of the universe with, hold your breath, the Earth in the center of the three coordinates. Signal concludes:

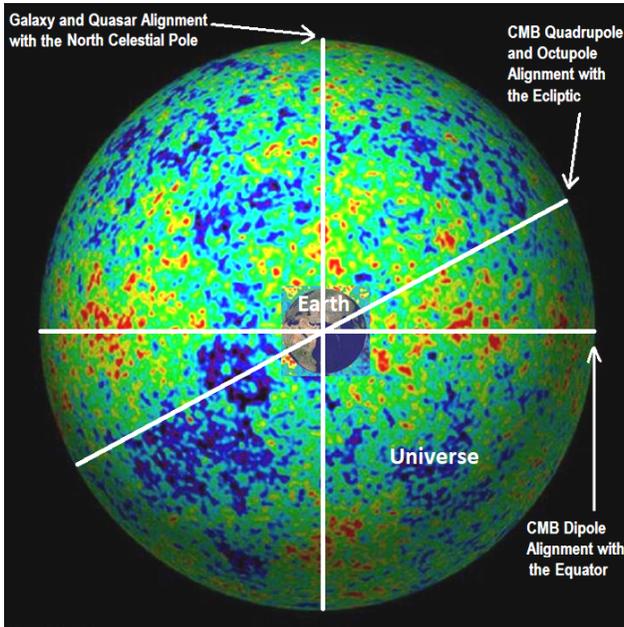
What is intriguing even further is why such anisotropies should lie about a great circle decided purely by the orientation of earth's rotation axis and/or the axis of its revolution around the sun? It looks as if these axes have a preferential placement in the larger scheme of things, implying an apparent breakdown of the Copernican principle or its more generalization, cosmological principle, upon which all modern cosmological theories are based upon.

Copernican principle states that earth does not have any eminent or privileged position in the universe and therefore an observer's choice of origin and/or orientation of his/her coordinate system should have no bearing on the appearance of the distant universe. Its natural generalization is the cosmological principle that the universe on a sufficiently large-scale should appear homogeneous and isotropic, with no preferred directions, to all observers. However to us on earth the universe does show heterogeneous structures up to the scale of superclusters of galaxies and somewhat beyond, but it is assumed that it will all appear homogeneous and isotropic when observed on still larger scales, perhaps beyond a couple of hundreds of megaparsecs. Radio galaxies and quasars, the most distant discrete objects (at

⁶⁴⁶ "Is there a violation of the Copernican principle in radio sky," Ashok K. Singal, Astronomy and Astrophysics Division, Navrangpura, Ahmedabad, India, May 17, 2103, arXiv:1305.4134v1. Signal states: "We can rule out at a 99.995% confidence level the hypothesis that these asymmetries are merely due to statistical fluctuations."

distances of many gigaparsecs or further) seen in the universe should trace the distribution of matter in the universe at that large-scale and should therefore appear isotropically distributed from any vantage point in the universe including that on earth.

This is a very perplexing question for those who believe in the Big Bang, heliocentrism and relativity, since the celestial anisotropies defy them all. The only answer left is the Earth is in the very center of the universe, and the latter moves with respect to the former.



Fr. Robinson: It turns out that all of the dials would have to be very precisely set for the universe to attain a state where it could be inhabited by humans. Take as an example the cosmological constant, which determines the rate at which the universe expands....The Cosmological Constant refers to the balance of the attractive force of gravity with a hypothesized repulsive force of space observable only at very large size scales. It must be very close to zero, that is, these two forces must be nearly perfectly balanced. To get the right balance, the cosmological constant must be fine-tuned to something like 1 part in 10^{120} . If it were just slightly more positive, the universe would fly apart; slightly negative, and the universe would collapse. There are at least 22 such values that must be most precisely configured for a

universe starting from a Big Bang to be able to support complex life (pp. 372-374).

R. Sungenis: Although we already dealt with Fr. Robinson's statement concerning the "Cosmological Constant" much earlier, let's add a few pertinent points. As we noted, the truth is, the only commonality modern Dark Energy theorists have with Einstein is that both invented what they needed to permit their theories to work as they wanted; and both were motivated to do so in order to preserve the reigning cosmological paradigm from which both were spawned, the Copernican Principle. The real truth is that Einstein's classical General Relativity can only account for 4% of the universe. But since the universe is now claimed to be 96% Dark Energy and Dark Matter in order to continue its alleged expansion, if they still wanted Einstein to be their mentor, they needed to make Einstein's theory come up to snuff. So they decide to inject Einstein's model with a booster shot called Lambda, which is 73% of the 96%, and it is given the acronym Λ CDM or Λ CDM (which stands for 'Lambda plus Cold Dark Matter'). However, adding Lambda to General Relativity's original tensor equation caused a huge problem. It required them to redefine General Relativity, since the original does not work with Lambda. That is, unless Lambda equals zero, General Relativity cannot add up its tensors correctly.

This takes us back to the basic problem with modern cosmology. The Big Bang, in opposition to Steady State cosmology, believes in a beginning to our universe – an explosion of some undefined infinitesimally small entity that occurred 13.7 billion years ago. As if getting something from nothing is not enough of a problem, the second thorn in the side of the Big Bang appears when the rate of the explosion must be determined. If it's too slow, the universe will go into what is called the "Big Crunch," that is, gravity will pull all the exploding parts back together before it can evolve into the organized biophilic system we see today. If it's too fast, the universe will be diffuse and will not be able to produce galactic structure and biological life. Like Goldilocks and her porridge, the expansion must be just right otherwise life couldn't exist (at least under modern science's illusory belief in evolution as the mechanical process that produces life). Additionally, the amount of matter in the explosion must also be just right.

Too much and the universe will not expand. Too little and no complex structures will be formed. As one scientist put it, it's like trying to balance a pencil on its point.

As one can see, modern cosmology is in a real pickle. But it didn't start here. When Newton discovered gravity, one of his first problems was having to deal with Copernicus' limited universe. Newton realized the very gravity he discovered would eventually pull all the stars into one massive ball. In order to compensate for this problem, Newton opted for an infinite and absolute universe. As time went by, science realized there were too many problems with an infinite universe (one being Olber's paradox), so Einstein tried to compensate for gravity by introducing an opposing force, which he called the "cosmological constant." As Misner, *et al*, describe it:

In 1915, when Einstein developed his general relativity theory, the permanence of the universe was a fixed item of belief in Western philosophy. "The heavens endure from everlasting to everlasting." Thus, it disturbed Einstein greatly to discover that his geometrodynamics law $\mathbf{G} = 8\pi\mathbf{T}$ predicts a *non*permanent universe; a dynamic universe; a universe that originated in a "big-bang" explosion, or will be destroyed eventually by contraction to infinite density, or both. Faced with this contradiction between his theory and the firm philosophical belief of the day, Einstein weakened; he modified his theory.⁶⁴⁷

⁶⁴⁷ Misner, Thorne and Wheeler, *Gravitation*, pp. 409-410. They add: "The only conceivable modification that does not alter vastly the structure of the [General] theory is to change the lefthand side of the geometrodynamics law $\mathbf{G} = 8\pi\mathbf{T}$. Recall that the lefthand side is *forced* to be the Einstein tensor, $G_{\alpha\beta} = R_{\alpha\beta} - \frac{1}{2}R_{\alpha\beta}$, by three assumptions: (1) \mathbf{G} vanishes when spacetime is flat; (2) \mathbf{G} is constructed from the Riemann curvature tensor and the metric and nothing else; (3) \mathbf{G} is distinguished from other tensors that can be built from **Riemann** and **g** by the demands: (1) that it be linear in Riemann, as befits any natural measure of curvature; (2) that, like \mathbf{T} , it be symmetric and of second rank; and (3) that it have an automatically vanishing divergence, $\nabla \cdot \mathbf{G} \equiv 0$. Denote a new, modified lefthand side by " \mathbf{G} ," with quotation marks to avoid confusion with the standard Einstein tensor. To abandon $\nabla \cdot \mathbf{G} \equiv 0$ is impossible on dynamic grounds (see §17.2). To change the symmetry or rank of " \mathbf{G} " is impossible on mathematical grounds, since " \mathbf{G} " must

Einstein's new formulation would reverse the effects of gravity and keep the universe from falling in on itself. The universe would remain static, not expanding or contracting. It would also follow Mach's principle, that is, space was defined by the matter within it. But Wilhelm de Sitter threw a wrench into that proposal. He didn't follow Mach's rules and thus created a variation for Einstein's cosmological constant. In doing so, de Sitter ignored all the matter of the universe and only concentrated on its quantum energy, an energy that would be enough to propel the needed expansion of the universe. So the choice was between Einstein's static but matter-filled universe and de Sitter's expanding but matter-deficient universe.

Next, Alexander Friedmann fiddled with Einstein's math and eliminated the cosmological constant, producing an expanding universe still under the constraints of General Relativity.⁶⁴⁸ But this required that he make the equations produce a universe whose matter was spread out evenly and was the same everywhere (*i.e.*, isotropic and homogeneous), otherwise known as the "cosmological principle." This made Arthur Eddington backtrack to point out that, even with the cosmological constant, an Einstein-type universe was not really static or balanced. Since gravity and Einstein's cosmological constant (Λ) had to be balanced so perfectly (*e.g.*, like balancing a pencil on its point), even minute fluctuations would produce a

be equated to T . To let " G " be nonlinear in **Riemann** would vastly complicate the theory. To construct " G " from anything except **Riemann** and g would make " G " no longer a measure of spacetime geometry and would thus violate the spirit of the theory. After much anguish, one concludes that the assumption which one might drop with least damage to the beauty and spirit of the theory is assumption (1), that " G " vanish when spacetime is flat. But even dropping this assumption is painful: (1) although " G " might still be in some sense a measure of geometry, it can no longer be a measure of curvature; and (2) flat, empty spacetime will no longer be compatible with the geometrodynamics law ($G \neq 0$ in flat, empty space, where $T = 0$). Nevertheless, these consequences were less painful to Einstein than a dynamic universe. The only tensor that satisfies conditions (2) and (3) [with (1) abandoned] is the Einstein tensor plus a multiple of the metric " $G_{\alpha\beta} = R_{\alpha\beta} - \frac{1}{2}g_{\alpha\beta} + \Lambda g_{\alpha\beta} = G_{\alpha\beta} + \Lambda g_{\alpha\beta}$ Thus was Einstein (1917) led to his modified field equation $G + \Lambda g = 8\pi T$."

⁶⁴⁸ For a good analysis of Friedmann's five equations, see http://nicadd.niu.edu/~bterzic/PHYS652/Lecture_05.pdf

runaway expansion or an unstoppable contraction. The best Friedmann could do was propose a universe with enough matter (what he called “the critical density”) that would allow the universe to expand for eternity but at an ever-decreasing rate, even though this solution itself was counterintuitive. As NASA puts it:

Einstein first proposed the cosmological constant...as a mathematical fix to the theory of general relativity. In its simplest form, general relativity predicted that the universe must either expand or contract. Einstein thought the universe was static, so he added this new term [Λ lambda] to stop the expansion. Friedmann, a Russian mathematician, realized that this was an unstable fix, like balancing a pencil on its point, and proposed an expanding universe model, now called the Big Bang theory.⁶⁴⁹

In retrospect, when Hubble relieved some of the problem by interpreting the redshift of galaxies as a sign the universe was expanding, still, in order to have the matter move yet remain homogeneous (as required by Friedmann’s equations), the value of its rate of expansion (H); as well as the value of its density (Ω); and the energy to propel the expansion (Λ), had to fulfill the Goldilocks rule – it had to be just right or there would be no universe. Various scientists have spent their entire careers trying to figure out the perfect combination to these three numbers, but to no avail. But this is what happens when the universe is made to start from a Big Bang instead of creative fiat—the math never produces what we actually see. Postulating a Big Bang is easy. Making it work with all the other laws of science is impossible.⁶⁵⁰

⁶⁴⁹ “Dark Energy: A Cosmological Constant?” http://map.gsfc.nasa.gov/universe/uni_matter.html

⁶⁵⁰ As we noted earlier, one of those “laws of science” cropped up in what was known as the “horizon problem.” If the speed of light is limited (and thus the spread of information from one end of the Big Bang to the other is also limited), how could the right hand of the explosion know what the left hand was doing? This problem was solved by the imposition of yet another fudge factor – the “inflation theory.” Designed by Alan Guth of MIT, it postulates that the Big Bang exploded at least 10^{35} times faster than previously thought, which then allowed the information to travel 10^{35} times faster.

Another problem arose at the tail end of the twentieth century. Observations of class 1a supernovae, which are used as measuring devices for time and distance in Big Bang cosmology, revealed the universe wasn't slowing down in its expansion but was accelerating (at least in the way their Big Bang eyes were contemplating the universe).⁶⁵¹ This meant there was no possibility the new acceleration (H_2) could be accounted for by the present amount of energy and baryonic matter ($\Lambda + \Omega$) in the Big Bang universe.

A related problem arose when the 2001 Wilkinson Microwave Anisotropy Probe (WMAP) apparently found that the geometry of the universe is "flat,"⁶⁵² which Big Bang advocates prefer because it is the only one which

⁶⁵¹ The 1a Supernovae explosions were dimmer than expected, which, based on redshift values, translated into them being farther away from Earth than what astronomers previously believed. Since their light has taken longer to reach Earth, Big Bang cosmologists assume the universe must have taken longer to grow to its current size. Consequently, the expansion rate must have been slower in the past than previously thought. Hence, the supernovae are dim enough that the expansion must have accelerated to have caught up with its current expansion rate. Yet the universe's matter should have slowed the expansion. So what is making it speed up? If the cosmological principle is accepted such that the acceleration occurs evenly and smoothly for the entire universe, it forces the introduction of "dark energy" to sustain the acceleration. See "Observational Evidence from Supernovae for an Accelerating Universe and a Cosmological Constant," Adam G. Riess, et al, 1998. The abstract concludes: "A Universe closed by ordinary matter (*i.e.*, $\Omega_M = 1$) is formally ruled out at the 7σ to 8σ confidence level for the two different fitting methods." (<http://arxiv.org/pdf/astro-ph/9805201v1.pdf>). See also "Surveying Spacetime with Supernovae," Craig J. Hogan, *et al.*, *Scientific American*, January 1999. See also Marie-Noëlle Célérier who concludes: "The interpretation of recently published data from high redshift SNIa surveys...It has been shown that a straight reading of these data does not exclude the possibility of ruling out the Cosmological Principle" ("Do we really see a Cosmological Constant in the Supernovae data?" *Aston. & Astro.* Feb. 2008, p. 9.

⁶⁵² A "flat" universe is a Euclidean 3-dimensional universe as opposed to a Riemann curved universe. Taken as a whole, the universe is Euclidean. In a "flat" universe, if one were to inscribe a giant triangle in a circle in outer space, the value would be π (3.14). Another way to describe it is to say that light travels in straight lines in a flat universe. In Big Bang cosmology, the "flatness" of the universe is determined by its energy density (Ω). If Ω is > 1 or < 1 , then the universe is curved or non-Euclidean and the above triangle would be $>$ or $<$ π , and light would travel a curved directions. Big Bang cosmologists prefer a "flat" universe so that it can expand forever (as opposed to curving back in on itself). It

will allow the negative energy of gravity to balance out the positive energy of matter so that the net energy is zero.⁶⁵³ As noted earlier, Big Bang advocates want a ‘zero’ energy sum because they believe it will answer the

is believed that the distribution of the cosmic microwave radiation (CMB) found by the 2001 WMAP showed a density fitting a “flat” universe.

⁶⁵³ Lawrence Krauss claims that WMAP determined the universe is “flat” by the following reasoning: The energy at the very beginning of the Big Bang was not zero, so one needs to arrive at zero sometime in the aftermath of the Big Bang. This was accomplished by finding a measurement in space that appeared to be zero. A triangle is drawn in space as the measuring device and applied as follows: if the universe is 13.78 billion years old, one should be able to see the beginning of the Big Bang (looking backwards into time, as it were). But one cannot see all the way back to the Big Bang because there is an opaque wall in the way. This wall is due to the fact that the temperature at the Big Bang was hot enough (3000K) to break apart hydrogen atoms to produce protons and electrons, which is a ‘charged plasma’ that is opaque to radiation. One cannot see past this part of the universe since it is opaque. But light bounces off the surface of the opaque wall and is radiated back to Earth (See Figure 2). This light is the CMB at 2.73K (instead of the original 3000K), so the protons have captured the electrons and made space transparent instead of opaque, and thus one can see this part of space from Earth. Moreover, the radiation should be coming to Earth from all directions since the wall surrounds earth like a sphere. Then, if one takes 1 arc second on the wall of the CMB (where it is opaque), it represents 100,000 light years in distance. Since Einstein said no information can be transferred faster than light, this means that anything that happened on one side of the CMB could not affect anything on the other side. Thus, big lumps of matter (bigger than 100,000 light years across) could not collapse because gravity, which Einstein limited to the speed of light, could not go across them. Lumps that collapsed had to be 100,000 light years or less in size. Since 100,000 light years equals one arc second for the base of the triangle; and the distance to the “opaque wall” provides the two other sides of the isosceles triangle (and since light rays travel in straight lines in the “transparent” part, then the sides of the triangle are straight), Viola! the needed “triangle” is produced to “measure” the energy. In an Open universe the light rays will diverge as one looks back into time, so the distance across the “lump” (the “ruler”) will look smaller, perhaps half an arc second. In a Closed universe the light rays look bigger as one looks back into time so the distance across the lump would be bigger than 1 arc second. The lumps are measured to see if they are a half, one, or 1.5 arc seconds. Boomerang and WMAP took a picture of the opaque wall and found the separation of the lumps was about 1 arc second, which matches a “flat” universe. Using a computer generated lump-picture in which the lump is less than 1 arc second produces a “Closed” universe. If the lumps are larger than one, they get an “Open” universe. (See Figure 1). As Krauss puts it: “the universe is flat, it has zero total energy, and it could have come from nothing.”

haunting question concerning the origins of the Big Bang, with the answer being “it came from nothing.”

To reiterate, to arrive at zero energy to counterbalance the negative energy of gravity, our universe has only 4% of the needed matter. Additionally, if they were going to use Friedmann’s equations, then a “flat” universe requires the “critical density” must be equal to the average density. But even adding in 23% Dark Matter and 4% normal matter, this left 73% positive energy still required to counterbalance gravity.

Yet another problem was the time needed for the formation of stars and galaxies. Under present calculations it appeared that the age of the universe was younger than the age of its oldest stars! NASA describes the dilemma and the proposed solution:

Many cosmologists advocate reviving [Einstein’s] cosmological constant term on theoretical grounds, as a way to explain the rate of expansion of the universe....The main attraction of the cosmological constant term is that it significantly improves the agreement between theory and observation....For example, if the cosmological constant today comprises most of the energy density of the universe, then the extrapolated age of the universe is much larger than it would be without such a term, which helps avoid the dilemma that the extrapolated age of the universe is younger than some of the oldest stars we observe!⁶⁵⁴

So what is a Big Bang cosmologist to do? If he has no energy source for the accelerating universe and is missing more than two-thirds of the needed “critical density” for a flat universe, then he would have to abandon the Big Bang theory altogether and perhaps start reading Genesis 1 with a little more respect and open-mindedness. But he will have none of that. So he does the same thing with this problem that he did with the spiral galaxies that were spinning too erratically to fit Newton’s and Einstein’s “laws of motion”—he simply invents the energy he needs. This time it is called Dark Energy, but he can’t see, hear, feel, taste or smell it. And how much does he need? According to the equations, about 73% of the universe must be composed of Dark Energy to make the Big Bang

⁶⁵⁴ “Dark Energy: A Cosmological Constant?” http://map.gsfc.nasa.gov/universe/uni_matter.html

conform to *1a* supernovae requirements. This invention then allows the universe to be 13.7 billion years old (so that it is older than the stars) and give enough energy to reach the needed “critical density.”

The proponents of this convenient manipulation of data seem oblivious to their ploys. But George Ellis is not ashamed to admit that the whole thing is based on wishing or presuming the Copernican Principle is true:

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....The further issue that arises is that while some form of averaging process is in principle what one should do to arrive at the large-scale geometry of the universe on the basis of observations, in practice what is normally done is the inverse. One assumes a priori a FLRW model as a background model, and then uses some form of observationally-based fitting process to determine its basic parameters.⁶⁵⁵

Michio Kaku more or less agrees with Ellis:

No one at the present time has any understanding of where this ‘energy of nothing’ comes from....If we take the latest theory of subatomic particles and try to compute the value of this dark energy, we find a number that is off by 10^{120} .⁶⁵⁶

As Kaku admits modern theory is “off by 10^{120} ,” he is referring to the discovery by Russian physicist Yakov Zel’dovich, and later established in quantum electrodynamics or quantum field theory, that empty space has an

⁶⁵⁵ “Inhomogeneity effects in Cosmology,” George F. R. Ellis, March 14, 2011, University of Cape Town, pp. 19, 5; <http://arxiv.org/pdf/1103.2335.pdf>.

⁶⁵⁶ *Parallel Worlds*, p. 12.

energy of 10^{120} more than the Dark Energy needed to propel the proposed “accelerating expansion of the universe.”⁶⁵⁷ The 10^{120} excess energy is the only source available but it cannot be cut up into slices. It is all or nothing. This is precisely why Big Bang advocates invented “Dark Energy”—a hoped for source of energy that is more than the miniscule energy created by baryonic matter but less than the 10^{120} excess energy given by quantum theory.

Here is an even bigger problem. Since Big Bang cosmologists believe space contains 10^{120} more energy than what we have detected; and since Einstein’s General Theory of Relativity requires that all forms of energy (even the 10^{120} of Dark Energy) function as a source of gravity; and since Einstein’s equations require the “curvature” of the universe depend on its energy content, then, since the energy content is 10^{120} more than what Einstein proposed, the whole universe should presently be curled up into a space smaller than the dot on this i. Obviously it isn’t. As we can see, the Big Bang universe simply does not work under present empirical evidence.

Noted physicist Paul Steinhardt of Princeton has gone on record against the present Big Bang theory. He opts for what can best be called the Big Brane theory. In a recent lecture, Steinhardt says the following of the Big Bang:

So, the first point I want to make about the Big Bang model is that the Big Bang model of 2011...that model I just described, definitely fails....We have to fix the Big Bang model, we have to add things to it to make it work.⁶⁵⁸

⁶⁵⁷ The actual number is 1.38×10^{123} . But this is only after any energy greater than the Planck scale is excluded. According to Sean Carroll at California Technical Institute: “You can add up all the effects of these virtual particles....and you get infinity....So we cut things off by saying we will exclude contributions of virtual particles whose energy is larger than the Planck scale...which we have no right to think we understand what’s going on...Then you get a finite answer for the vacuum, and answer that is bigger than what you observe by a factor of 10 to the 120th power.” (<https://www.youtube.com/watch?v=SwyTaSt0XxE> &feature=watch-vrec). This is one of the reasons Carroll runs the website titled: “The Preposterous Universe” at <http://preposterousuniverse.com>.

⁶⁵⁸ <http://www.youtube.com/watch?v=IcxptIJS7kQ>.

Indeed, things like Inflation, Dark Matter, Dark Energy, Lambda values and Hubble “constants” of which the only thing constant is that they are constantly being changed to accommodate the next fudge factor that will be needed to prop up the Big Bang. Along these lines, Richard Lieu submitted a scathing critique of the Λ CDM [Big Bang] model in a 2007 paper:

...Cosmology is not even astrophysics: all the principal assumptions in this field are unverified (or unverifiable) in the laboratory, and researchers are quite comfortable with inventing unknowns to explain the unknown. How then could, after fifty years of failed attempts in finding dark matter, the fields of dark matter and now, dark energy have become such lofty priorities in astronomy funding, to the detriment of all other branches of astronomy?...

Λ CDM cosmology has been propped by a paralyzing amount of propaganda which suppress counter evidence and subdue competing models....I believe astronomy is no longer heading towards a healthy future....Charging under the banner of Einstein’s extreme eminence and his forbidding theory of General Relativity, have cosmologists been over-exercising our privileges?...Could this be a sign of a person (or camp of people in prestigious institutes) who become angry because they are embarrassed?⁶⁵⁹

In other words, modern cosmology doesn’t know what the blazes it is doing today. It is at a total loss to explain the universe, more so than it was a hundred years ago. And whereas General Relativity was considered the solution to cosmology’s major problems in the 1920s, the 2006 Task Force on Cosmology concludes: “Possibility: GR or standard cosmological model incorrect.”⁶⁶⁰

The new means by which many modern cosmologists seek to deal with these intractable anomalies is by inventing the Multiverse. This allows the

⁶⁵⁹ “ Λ CDM cosmology: how much suppression of credible evidence, and does the model really lead its competitors, using all evidence,” Richard Lieu, Dept. of Physics, Univ. of Alabama, May 17, 2007. Although Lieu presents equally flawed models due to the fact that all cosmologists are searching in vain for how the universe started and develops, he candidly admits “Perhaps all models are equally poor” (p. 12).

⁶⁶⁰ *Ibid.*, p. 7.

modern cosmologist to create any universe he desires so that all the numbers can fit the way he wants them to fit. In the words of the popular cosmologist, Brian Greene:

In seeking an explanation for the value of dark energy, maybe we've been making a mistake analogous to Kepler's. Our best cosmological theory – the inflationary theory – naturally gives rise to other universes. Perhaps, then, just as there are many planets orbiting stars at many different distances, maybe there are many universes containing many different amounts of dark energy. If so, asking the laws of physics to explain one particular value of dark energy would be just as misguided as trying to explain one particular planetary distance. Instead, the right question to ask would be: why do we humans find ourselves in a universe with the particular amount of dark energy we've measured, instead of any of the other possibilities?

This is a question we can address. In universes with larger amounts of dark energy, whenever matter tries to clump into galaxies, the repulsive push of the dark energy is so strong that the clump gets blown apart, thwarting galactic formation. In universes whose dark-energy value is much smaller, the repulsive push changes to an attractive pull, causing those universes to collapse back on themselves so quickly that again galaxies wouldn't form. And without galaxies, there are no stars, no planets, and so in those universes there's no chance for our form of life to exist.

And so we find ourselves in this universe and not another for much the same reason we find ourselves on earth and not on Neptune—we find ourselves where conditions are ripe for our form of life. Even without being able to observe the other universes, their existence would thus play a scientific role: the multiverse offers a solution to the mystery of dark energy, rendering the quantity we observe understandable.

Or so that's what multiverse proponents contend. Many others find this explanation unsatisfying, silly, even offensive, asserting that science is meant to give definitive, precise, and quantitative explanations, not "just so" stories. But the essential counterpoint is that if the feature you're trying to explain can and does take on a wide variety of different mathematical values across the landscape of reality, then seeking a definitive explanation for one value is wrongheaded. Just as it makes no sense to ask for a definitive prediction of the distance at which

planets orbit their host stars, since there are many possible distances, if we're part of a multiverse it would make no sense to ask for a definitive prediction of the value of dark energy, since there would be many possible values.⁶⁶¹

In the hands of inflation, string theory's enormously diverse collection of possible universes become actual universes, brought to life by one big bang after another. Our universe is then virtually guaranteed to be among them. And because of the special features necessary for our form of life, that's the universe we inhabit.⁶⁶²

Hence modern cosmology's answer to the unsolvable problems in its theory, and its answer to the unfathomable precision with which our universe is made, is to fantasize that an infinite variety of universes exist, and, just by time and chance, we have somehow stumbled upon the only one that we can live in. Cosmology has now turned into metaphysics. The empirical approach does not provide the answers they desire, so science now opts to make its scientists into philosophers and metaphysicians who can create their own universes at will, just like God. But isn't this the real problem with mankind at large, and precisely the same problem he had in the Garden of Eden? He wants to be a god on his own terms so that he doesn't have to bow to the one and only God.

So now we come to the end of Fr. Robinson's book. It ends much like modern science's quest for the 10^{120} energy it needs for its theory to hold up, but cannot be found. That Fr. Robinson would turn the absence of the 10^{120} energy into an indication of the precision of the Big Bang universe merely shows how one can twist the scientific evidence any way he chooses. That he bases his 'Realist Guide to Religion and Science' on such a preposterous theory mean his 'Guide' is nothing more than an illusion that itself is 10^{120} off track.

⁶⁶¹ Brian Greene, "Welcome to the Multiverse," *The Daily Beast*, May 21, 2012, <http://www.thedailybeast.com/newsweek/2012/05/20/brian-greene-welcome-to-the-multi-verse.html>.

⁶⁶² "New Secrets of the Universe," *Newsweek*, May 28, 2012, p. 25.