

# Astronomy/Cosmology Breakthroughs and the God Question

Colleagues,

Steve Kuhl, President of the Crossings Community, provides this week's ThTh post. Steve's a Seminex alum, came into the seminary "through a side door" from a career in aeronautical engineering, did his Ph.D on something like "Christ and Culture when American Agriculture is the Culture in Question." He's been doing "science and theology" ever since. Though that is not the job he gets paid for. Associate Professor of Historical Theology is his current title. Where he carries out that calling is, of all places, at Roman Catholic institutions of higher learning. His first such professorial workplace was the RC diocesan seminary in Milwaukee, Wisconsin. Just this fall he moved over to the Dept of Religious Studies at Cardinal Stritch University—also in Milwaukee. Steve works in this ecumenical collegium without hiding (so he claims) his law-gospel DNA for doing theology. "They knew who I was, and they (still) asked me to teach for them," he tells me. Today's ThTh post was Steve's presentation a fortnight ago at the fall meeting of ITEST, the Institute for Theological Encounter with Science and Technology. ITEST started out some 40 years ago here in St. Louis, a collaborative initiative of two "Roberts," one a Roman Catholic Jesuit, one a Lutheran, both named Bob. Bob Brungs was a physicist and a priest at St. Louis University, and Bob Bertram, a theology prof at Concordia Seminary at that time and then later at Seminex, and later still the patriarch of Crossings. Both Bobs co-chaired ITEST gatherings until their recent deaths. The Bertram half of these Bob-sey twins finessed me to the ITEST podium on a couple of occasions. Two of the papers I presented in days gone by at

ITEST meetings—one a conference on DEATH AND DYING, another when ARTIFICIAL INTELLIGENCE was the theme—are on the Crossings website, <[www.crossings.org](http://www.crossings.org)>. At least one of Bob's ITEST papers is also archived there, his classic HOW TO BE TECHNOLOGICAL THOUGH THEOLOGICAL: AN ANSWER FOR "FABRICATED MAN" from 1975.

When Marie and I began galavanting around the planet as "global mission volunteers" in 1993 I dropped out of ITEST conversations, but Steve carries on the Aha! of Augsburg Catholicism amongst the ITESTers, as you will see below.

Peace and joy!

Ed Schroeder

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*Here are Steve's own words about the context for his text. The following piece is a response I gave to the three keynote presenters at the recent ITEST conference held on September 21-23, 2007. (ITEST's website is <[www.faithscience.org](http://www.faithscience.org)> and we thank them for giving us permission to publish this piece.) The conference theme was "Astronomy/Cosmology Breakthroughs and the God Question." The three main speakers were all Roman Catholics whose primary work is in some field of science.*

*Brother GUY CONSOLMAGNO is an Astronomer at the Vatican Observatory and presented a paper entitled "Planetary Science Breakthroughs and the God Question." His focus was twofold: He explained 1) the scientific methods Astronomers use to find new stars, planets, etc. and 2) the history of how "breakthroughs" in Astronomy have led to different cosmologies and impacted theological and ecclesiological thought.*

STEPHEN BARR is a renowned particle physicist who has been deeply involved in the faith/science dialog. His most recent book on theology and science is "Modern Physics and Ancient Faith" (University of Notre Dame Press, 2003). Barr's paper was entitled "Anthropic Arguments, Multiverses and Design Arguments: Future Prospects."

Barr focused on the recent debate between (theistic and atheistic) scientists concerning the so-called "anthropic coincidences" that permeate the scientific data and which give interpretive rise to the so-called "Anthropic Principle." That anthropic principle is the idea that the only plausible explanation for the seemingly arbitrary constants that regulate the theorems of modern physics is that, from the instant of the Big Bang, human intellectual life was intended.

At the center of this debate is the meaning of the incredible "fine tuning" of the universe that makes life as we know it possible. Barr notes that some say it is evidence of a cosmic Designer, while others say it is explained by a theory of "multiverses," that there are many universes, all with different constants and feature, and that they all arose by chance—ours included. Finding ways to test these ideas is key to science's future.

NEYLE SOLLEE is a pathologist by profession (and thus a user of microscopes) but has also been deeply involved (as a user of telescopes) in Observatory Astronomy. His paper is entitled "From Microscopes to Telescopes: A Pathologist Looks at the 'Problem of God' and the Integration of the Book of Nature and the Book of Scripture."

Arguing that good science and good faith go hand in hand, Sollee advances a modern version of the teleological/cosmological argument for the existence of God,

*drawing on the awe-inspiring picture of the universe that modern science presents and the theological tradition of Thomas Aquinas. It is significant that all these papers either assume or specifically identify \_the\_ “God Question” as the question of the existence of God and that the “God problem” we face today is getting people to see God in the scientific evidence. It is that assumption that is at the heart of my response.*

*Peace,  
Steven K.*

**Steven C. Kuhl**

***Which God Question?***

***A Response to Consolmagno, Barr, and Sollee on  
Cosmology, Astronomy and the Question of God  
ITEST, September 21-23, 2007***

- 1. I want to begin by thanking our three keynote presenters for anchoring us in the topic and especially for their willingness to send their unpolished papers to me so that I might have a little more time to read and reflect on them. Being myself a perfectionist, I know first hand how anxiety-producing it can be to let your thoughts into the public before you yourself are finished shaping them. So thanks for your generosity in that regard. **Which God Question? The Existence Question or the Soteriological Question***
- 2. What I don't see in any of the papers is a wrestling with the “meaning,” ambiguity, or intent of the conference theme as stated: The God Question: Cosmology and Astronomy. So I am going to take some time to do that here. First, what is the topic? Is the topic “the God question [as asked in] cosmology and astronomy; or is it “the God question [as answered by] cosmology and astronomy? More importantly, what do we mean by the “God*

question"? Is the definite article "the" misleading? Might there not be several kinds of God questions, questions that different disciplines may or may not be competent methodologically or instrumentally either to ask into clarity or to answer with any degree of confidence? The conference title, as I read it, explicitly evokes only two disciplines by name, Cosmology and Astronomy. Theology is only implicitly implied because the other two are being called upon to talk about theology's central focus of concern, God and God's relation to the world.

3. Having said that, from our three presenters, it seems that the "God question" as they understand it has to do with "whether God exists" and the "God problem," as they like to call it, is a matter of demonstrating God's existence on some rational, scientific grounds. This is certainly the "God Question" that often appears in the popular press. Neyle Sollee alone attempts to address this "God Question" (or "God problem") from a theological perspective, and I commend him for that. But, unfortunately, he does so by way of what seems to me to be a rather a-critical presentation of the Nature-Grace perspective of Thomas Aquinas (specifically *Summa Theologica* I.2.1-3), particularly, the strong teleological dimension of Aquinas' thought. I call his presentation "a-critical" because it ignores the vast philosophical and theological work since Hume and Kant that has credibly, in my judgment, relegated much of that interesting (teleological) aspect of Aquinas' thought and method to the category of the history of ideas.

[For example, in his presentation, Sollee elucidated this tradition by way of the metaphor that Astronomy beholds the "finger prints" of God throughout the cosmos. But does it? Does Astronomy really give such obvious proof of God's existence? Isn't Sollee really describing a pre-

*existing faith in the existence of God that is being read into the data, not the existence of God being read out of the data?*

*This illustration might help clarify my point. When detectives go to a crime scene they certainly see evidence of a disturbance. That's obvious. But does that constitute evidence of who did it? No. For that they need evidence of the criminal himself; they need finger prints, for example. And the "good thief" leaves no such evidence behind. That, I submit, is the way the biblical God works in the world. In general, God the creator leaves no finger prints of himself in his handiwork. What we know of him comes by way of "revelation," self-disclosure (usually in the form of proclamation), not investigation. God is far more elusive than the rationalist tradition imagines; and for various reasons that will be discussed more below.] (fn 1)\_*

*To be sure, the hope of such a "rational proof" for the existence of God does still abound in the popular human imagination: Creation Science and Intelligent Design Theory, for example, are built on it, as are, perhaps, some interpretations of the so-called anthropic principle. Nevertheless, I think that such a hope is both illusory and unfaithful to the Christian view of God as incomprehensible: ungraspable and above the reach of human reason.(fn 2)\_*

- 4. Therefore, the question of demonstrating the existence of God, I submit, is not the "God question" that Christian Theology (biblically indicated and traditionally carried out, at least, pre-Scholasticism) has traditionally claimed competency to answer. Indeed, the nature of God's "existence" as understood in Christian theology is such*

that it cannot be proved in rational fashion; and it is the paradoxical burden of Christian theology to expound that fact in as reasonable way as possible. This epistemological limit is not meant to be a stop-gap, but the starting-point for another very practical "God question," what I will call the "soteriological question." Unfortunately, the "existence question" has often been a great distraction from the "soteriological question" which, to the best of my knowledge, is the one theological question to which Christian Theology claims a unique competency. That question, to borrow language from this Sunday's text (Luke 16:1-13) in the Revised Common Lectionary, goes something like this: how do we give an adequate accounting to God for our (mis)management of this, God's cosmos? That is the "God problem" Christian theology knows something about.

From the perspective of Christian Theology, to focus too doggedly (or dogmatically) on the question of demonstrating God's existence as a prerequisite for any other question about God turns the "existence question" into either a ploy at self-justification or self-delusion: Self-justification because if the answer is "no," then, there is no God to render an account to, only ourselves (still, no small matter); or self-delusion because if the answer is "yes," then religious people tend to make the presumptuous leap that by means of their very religiosity, they are able to make an adequate accounting of their stewardship. Indeed, to focus too dogmatically on the existence of God distracts also from the historical Event of Jesus Christ as God's own, gracious answer to the soteriological God question, which is the one thing Christian Theology claims unique competency in. But more on all this later.

By the way, and I hope we can also talk about this more later, this soteriological God question (and answer) is not altogether missing from Aquinas' theological vision. (See, for example, ST I.1.1 "the Nature and Extent of Sacred Doctrine" and ST III.49, "The Effects of Christ's Passion.") If Christians want to use Aquinas as a source of theological imagination (as increasingly not only Roman Catholics, but also some Protestants have (fn 3), they would do well to focus, not on Aquinas the Aristotelian Philosopher, but on Aquinas the biblical, Christian Theologian, taking their cues from the recent Aquinas studies influenced by M-D Chenu and J-P Torrell.

### **Cosmology and Creation**

5. What about Cosmology or Astronomy? I submit that like Theology, they too lack the competency to answer "Yes" or "No" the Question of God's existence-and to presume so does a great disservice to them also. Therefore, we must also ask what we mean by "cosmology" and "astronomy" as disciplines of study and the nature of their objects and competencies. To my mind, the object, scope and methods of Astronomy as a "scientific" discovery discipline are well defined within the grasp of human reason. It seeks to understand observable celestial phenomena outside the earth's atmosphere. But the object, scope and methods of the discipline of "cosmology" are not so clear. As The Encyclopedia of Philosophy states, the term stands for a "family of related inquiries, all in some sense concerned with the world at large" of which "two main subgroups may be distinguished: those belonging to philosophy and those belonging to science." Whatever light cosmologists in the room can shed on this distinction would be helpful to me.
6. As I understand the term "cosmology," it was first coined in 1728 by the German Rationalist Philosopher Christian



von Wolff in his *Discourse on Philosophy in General*. (Wolff is the bridge figure between Leibniz and Kant in the history of philosophy.) Cosmology was a catchall word meant to ask questions and seek understanding about, not the various "pieces" that make up the world, but the "world as a whole." Cosmology, as Wolff presented it, entails identifying the root, elemental, building-block "substance" of the world ("simples," as he called them) and, in a rather pedantic fashion, follow how they come together, observing and explaining the emerging collectives in mathematical, theoretical terms. The cosmos is in some sense the sum of its parts. Therefore, "cosmology" emerged not strictly as a "scientific" discipline or concept, but as a philosophical or hermeneutical one, as philosophers, under the materialistic impulse of Modernity, strove to update its work, relating its traditional concerns to the findings of modern science, in this case, Newtonian physics and its mathematical explanation of things, which it took as providing proof for a kind of "unified theory" of the physical world (and by analogy of its metaphysics, its sub- or super-structure, depending on one's outlook) that is thoroughly rational and comprehensible to the human mind.

7. Although I'm not certain if it was Wolff's intent, the word, so it seems to me, has come to replace the word "creation" as the preferred scientific and philosophical description of the whole material (fn 4). The term "cosmology," like the term "creation," understands the world as an "ordered whole" that has integrity in all its parts. But unlike the term "creation," cosmology assumes that this "ordered whole" stands as-a-whole on its own, autonomously, in an absolute sense. Therefore, for cosmology, as both a scientific and philosophical

discipline, the question of "origins" is fundamental, and it is assumed that it can be answered in a naturalistic, rational way. To know something's origin is to know it in its totality.

8. Of course, what cosmology dismisses from its outlook is the theological idea of *creatio ex nihilo* (namely, that the world is "created out of nothing") which is, to my knowledge, the only assertion Christian Theology makes about cosmology, the world as whole. Cosmology, in other words, presupposes a "chain of creation," to use Guy Consolmango's term, that can be followed rationally to its beginning, to its origins, which must be some "physical" phenomenon. But Christian Theology says paradoxically that the "source" (meaning its material origin, not its divine maker) of the world-as-a-whole is "nothing." The Creator creates the cosmos *ex nihilo*. This is not a God-of-the-gaps teaching, but one that is rooted, ironically, in Christianity's (and Judaism's) demythologizing, demystifying, indeed, naturalizing view of the created world vis-à-vis all spiritualizing tendencies, whether political or religious or philosophical. To say that the creation in all its parts is a "natural" order does not contradict the fact that as-a-whole it exists *ex nihilo*, that is, its existence is absolutely contingent on God the Creator.
9. Moreover, this teaching (*creatio ex nihilo*) is also inseparable from Christianity's understanding of the human person as God's "created co-creator," to use Philip Hefner's pithy term. Humanity is that part of the creation created by God to be the "steward" (not Lord) of the creation. This, I submit, is the fundamental point of the idea that humanity is created in the image of God. (Gen. 1:26 is theologically consistent with Gen. 2:15). From the perspective of Christian Theology, then, the

rise of modern scientific inquiry is a natural, essential aspect of our human vocation as steward, as a species that is accountable how we engage the world. Although Christian Theology holds this self-understanding as an article of faith that can't be proved, yet look how impossible it is to get away from the fact of it. Our very life-together finds us constantly driven to hold each other accountable for our use and abuse of the creation (Cf. Gen. 3:12-13), as though that impulse within us is part of the very warp and woof of the fabric of creation. Yet try to prove it scientifically? You can't.

10. While the idea that God is the Creator who creates ex nihilo is an article of faith, it is an article that affirms the scientific sensibility of Occam's razor: Do not add metaphysical entities beyond their need. One danger today is that some Christians want to interpret the Big Bang, for example, as proof of a Creator who creates ex nihilo and, thus, the end of cosmology. The irony is that the Christian Doctrine of Creation by definition denies such proof. Therefore, in reality, the Doctrine of Creation says to conscientious scientists, "keep going!" It urges them to look deeper and see farther, if they can, into mystery and wonder of the "natural" astrological-cosmological phenomenon-even that which might lie beyond the Big Bang: not to prove or disprove God, but to further our human vocation to be the stewards and caretakers of this world. There is no hope or danger of either proving or disproving God: such is the nature of the incomprehensible God as the Christian faith asserts. The only danger is false belief: that is, not believing and living as though we are God's stewards and instead believing and living as though we are our own lords. That is the great temptation that is-dare I say-

our cosmological “fall” (Genesis 3:4-5), which as Paul asserts has cosmological consequences (Cf. Romans 8:18-25).

In the spirit of Augustine, faith by its very nature seeks understanding, but the very thing true faith rests upon—which for him is the Creator God who is known to be merciful in Jesus Christ (the soteriological answer to human restlessness)—is finally incomprehensible (cf. Confession I.1) to reason and investigation and is accessible only to faith as a divine gift or illumination. But it is believed, not like a fairy tale, but because the One who spoke it is trustworthy, Jesus Christ, who is not simply the “finger print” of God, but the “finger of God” (Luke 20), the Word made flesh, the soteriological answer to the God problem that every steward faces.

### **The Anthropic Principle and Humanity as God’s Steward**

11. Stephen Barr immerses us into the complex science that underlies the ongoing debate about the meaning and implications of the so-called “Anthropic Principle” (an idea coined by Brandon Carter in 1973) or, as he and others prefer to call it, the “anthropic coincidences” (coined earlier by Rob Dicke in 1961). The idea, as I understand it, is linked to our recent knowledge of just how “finely tuned” the cosmic parameters of our universe needed to be microseconds after the Big Bang in order for human life to be as it is in our particular time and place in the universe. For a number of scientists, religionists, and others, this combination of “coincidences” is too fantastic to be simply called “coincidences.” Rather, they constitute what is called the Anthropic Principle, the idea that the universe is the logical outworking of some inner purpose or telos,

*whether mystical or naturalistic, designed to bring forth intelligent human life. We, the human creature, are the ultimate explanation of the cosmos. For many adherents of the Anthropic Principle, the implications of these coincidences for religion is obvious.*

- 12. In my judgment, the Anthropic Principle is a tautology, a statement that the world is as it is because the world is as it is. Moreover, the Anthropic Principle (composed of amazing coincidences) is analogous to the Intelligent Design Theory (rooted in the wonder of irreducible complexity). Neither of these ideas, in my judgment, is science in the modern sense of the term; and neither comes close to anything like proving the existence of God. They may well be expressions of faith in some kind of benevolent Creator-God read into the scientific data, but they are not proof of the Christian God read out of the scientific data. That God is by definition incomprehensible, as I explained above. It may also be true that the more we scientifically explore the world in which we live the more amazing and awe-inspiring it is- but amazement at the natural world is not proof of a divine Creator.*
- 13. If Christian Theology can speak of something like an "Anthropic Principle" in the world, it would not be deduced from the cosmic constants and it most certainly would not envision humanity as the lord of or the reason for the existence of the cosmos. Rather, it would be rooted in something more existential: like our human vocation to be stewards of the creation. The data of this Principle would be twofold, consisting of 1) our innate drive as a species to do science presumably for the sake of a better stewardship of this natural world and 2) our innate sense of holding one another accountable for that stewardship. While those existential data do not prove the*

existence of God, they do correlate with what Christianity confesses to know about God: 1) that God is the Lord and creator of a cosmos that is wholly other than himself (Gen 1 and 2), 2) that God is the One who has called us into our human role as stewards of the creation (Cf. Gen 1:26-31; 2: 2:15-17), and 3) that God is the one who holds us accountable to him for that stewardship, though it be through the intimate, historical inter-workings of the creation (Genesis 2-3, Rom. 1:18-3:20).

Ultimately, the intellectual gifts that God has given humanity are sufficient for us to be stewards, but they are not sufficient for us to be lords of creation, that is, to comprehend God or apprehend his deity. But there is also a theological reason also for this intellectual limit: God is generally incomprehensible not only for epistemological reasons, but on account of his wrath, on account of which sinful stewards "suppress the truth" about God (Rom. 1:18). Therefore, any naïve venture into the "existence question" is ultimately fraught with danger and begs a more basic question (basic, that is, to our existence) the "soteriological question": how do stewards survive the wrath of God?

The existential data do ultimately corroborate the "soteriological question," rooted in the anxiety-inducing demand that we render an adequate accounting to God for our stewardship (Cf. Luke 16:1-13). Thankfully, the sufficient answer to that question has been historically revealed in no uncertain terms in the Event of Jesus Christ. There is no question about the existence of Jesus Christ, the Word made flesh. The only question is: do we believe him? Do we trust his promise, his claim, to be the One in whom God reconciles to himself the whole

*cosmos-steward and stars and all? With him, as we believe so we have.*

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1. ) *The brackets contain a summary of an adlib to what I originally wrote in response to the idea of "God's finger prints in the cosmos" that Neyle Sollee had added to his presentation. It is important to add it here because subsequent discussion makes reference to it.*
2. ) *For a lucid description of this, see, for example, Philip Cary, "The Incomprehensibility of God and the Origin of the Thomistic Concept of the Supernatural," Pro Ecclesia 11, no. 3 (Summer 2002): 340-55.*
3. ) *Arvin Vos, Aquinas, Calvin and Contemporary Protestant Thought: A Critique of Protestant Views of on the thought of Thomas Aquinas (Grand Rapids, MI: Eerdmans, 1985); Eugene Rogers, Thomas Aquinas and Karl Barth: Sacred Doctrine and the Natural Knowledge of God (Notre Dame, IN: University of Notre Dame Press, 1996); Geisler, Norman L. Thomas Aquinas: An Evangelical Appraisal. Grand Rapids: Baker, 1991; Robert L. Reymond, "Dr. John H. Gerstner on Thomas Aquinas as a Protestant," Westminster Theological Journal 59.1 (1997): 113-12. For Catholics interested in comparing Aquinas with Protestant thought see, for example, Otto Pesch, The God Question in Thomas Aquinas and Martin Luther (Philadelphia: Fortress Press, 1972); Denis Janz, "Syllogism or Paradox: Aquinas and Luther on Theological Method," Theological Studies, vol. 59, 1998, pages 3-21.*
4. ) *Tore Frangmyr, "Christian Wolff's Mathematical*

*Method and its Impact on the Eighteenth Century,"*  
*Journal of the History of Ideas, Vol. 36, No. 4*  
*(Oct. – Dec., 1975), pp. 653-668.*