

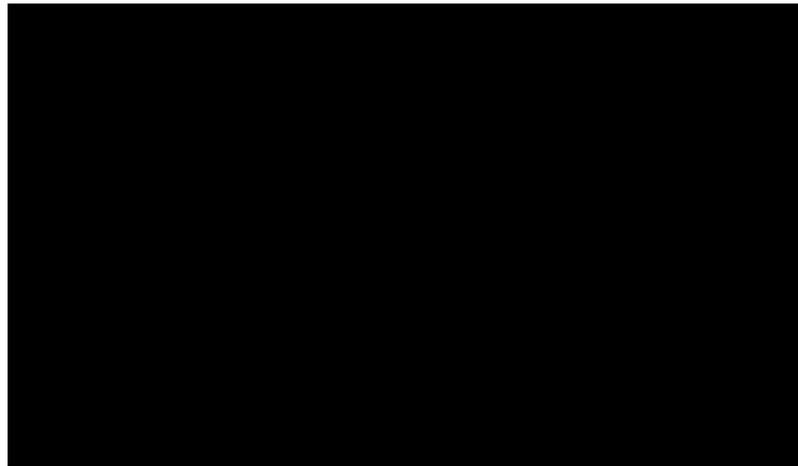
# Questions and Answers

## Science and Faith

### Is there a conflict between the two?

Professor John Lennox discusses Christianity, atheism and science

#### Introduction - Key Lectures



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1. The Universe Doesn't Care
  2. Our Sense of Time
  3. Intelligent Design
  4. What is Truth?

As a curtain raiser - three important quotes / extracts on

Orthodoxy's understanding of the relationship between religion and science, one from antiquity, two others from today.

### St. Augustine of Hippo



"Even a non-Christian knows something about the earth, the heavens, and the other elements of this world, about the motion and orbit of the stars and even their size and relative positions, about the predictable eclipses of the sun and moon, the cycles of the years and the seasons, about the kinds of animals, shrubs, stones, and so forth, and this knowledge he holds as being certain from reason and experience.

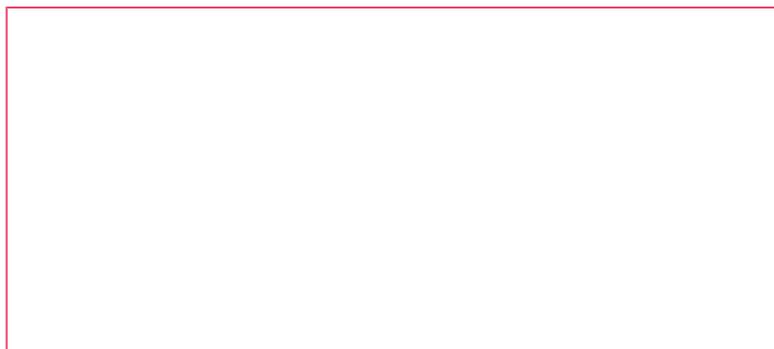
Now, it is a disgraceful and dangerous thing for an infidel to hear a Christian, presumably giving the meaning of Holy Scripture, talking nonsense on these topics; and we should take all means to prevent such an embarrassing situation, in which people show up vast ignorance in a Christian and laugh it to scorn. " (St. Augustine on Genesis)

## Lectures

Fr. Gregory's Lecture at the Orthodox Youth Festival in Ilam, Derbyshire on Monday 2nd May 2011 (Powerpoint)

Title: The Image of God and our place in the Universe

The Christological Cosmology of St. Maximos the Confessor



More [PowerPoint presentations](#) from [Gregory Hallam](#)

## Fr. Gregory's Lecture at Manchester Metropolitan University on Orthodox Christianity and Science, 24th February 2011



[Orthodox Christianity, Science and Truth](#) from [Gregory Hallam](#) on [Vimeo](#).

In this lecture at Manchester Metropolitan University I show how Religion and Science are not incompatible. I propose that the Faith of the Orthodox Church, which is so distinctive and different from all other Christian churches, has some interesting insights to offer.

This is my first attempt at recording. The quality is average but I have learned lessons for next time!

[Transcript - Audio File](#)

Here is the Powerpoint Presentation I used:-

[Slides \(PDF format\)](#) - [Slides \(Powerpoint hosting and download link\)](#)

This is the video embedded in the last slide and referred to in the lecture, (transcript footnote page 9)

[Video: The Amazing Game of Life](#)

**I owe this man a lot for the clarification of our shared Orthodox heritage in respect of God and Nature, Creation and Science.**

**Fr. Christopher Knight**



## "Orthodox Christianity and the Sciences of our Time"

Now you know where I stand!

So ....

Conversations with Fr. Gregory

### The Participants to Date



I am your Web Editor, Fr. Gregory Hallam, parish priest of St. Aidan's Orthodox Church in Manchester. David Darling (below) is an old school friend of mine and is far better equipped to explain the science bits than I am. However, I do like to keep my hand in!



David Darling runs an excellent news site, "[The Worlds of David Darling](#)" for matters concerning Astronomy, Cosmology, Spaceflight and Astrobiology. He has a PhD in Astronomy from Manchester University and is a prolific author and science journalist. [More here](#)

...

This exchange is open to anyone who wants to contribute, (moderation rights for the discussion vest in the Web Editor). Please contact [Fr. Gregory](#) if you have a contribution to make.

There is another page on this site that looks at [Cosmology](#) from an Orthodox Christian point of view.

Here is the link to the ["Intelligent Design"](#) section of this debate.

### DISCUSSION 1: THE UNIVERSE DOESN'T CARE!

Fr. Gregory writes ...

Consider our sun, the celestial body without which there would be no life on earth. This is not simply because without the sun the earth would wander dark and cold through interstellar space but also by reason of another more fundamental aspect of life and even of physical existence itself.

The Sun is made up of an incandescent mix of, primarily, gas in plasma form. It is composed of about 75% hydrogen and 25% helium. About 0.1% consists of metals (made from hydrogen via nuclear fusion). This ratio is changing very slowly over time as the nuclear reactions continue, converting smaller atoms into more massive ones. Since the Sun formed 4.5 billion years ago, it has used up about half of its initial hydrogen supply.

Our Sun is a second or third generation star. Second generation stars do not just burn hydrogen; they also burn heavier elements, like helium and metals (elements heavier than hydrogen and helium), and were formed from supernova explosions (the debris of exploded population II stars).

In other words, a significant percentage of our bodies and everything you see around you was forged in the heavy element fusion process of much more massive and hotter stars than our sun that exploded billions of years ago and bequeathed their products to the interstellar gas that eventually contracted under gravity to form our own star and planets. This is what I mean by saying that the sun is a second or third generation star.

When wags say that we are stardust; it is true. Even stranger is the fact that we are stardust from elsewhere in the galaxy!

Let's stop a bit and reflect.

Without the gargantuan energies powering supernovae explosions there would be no solid earth beneath our feet and no chemical life as we know it.

It gets curiously! The subatomic processes that lead to nuclear fusion and life-capable matter are governed by quantum and sub atomic forces that are incredibly fine-tuned. If the laws governing these processes were nudged out of alignment ever so slightly, not only would life be impossible in the Universe but also the Universe as a long lasting physical reality would be seriously compromised. Some versions of these laws have the Universe collapsing back into nothingness almost as soon as it has been formed. Scientists call this the "anthropic principle" and it makes the unbelieving ones very twitchy and defensive. There are only two general possibilities:-

(1) "The Universe knew we were coming" as the physicist Freeman Dyson once said. The strong version of the anthropic principle is part of the Intelligent Design, fiercely resisted by such atheist scientists as Richard Dawkins. According to this account, for all the seeming indifference and brutality of the cosmos in which we find ourselves, we live in a Universe that is positively benign toward life and highly driven toward its emergence from "dust." (Echoes of Genesis of course). Lets us recall that in Genesis it says "let the EARTH bring forth ...." In other words, God not create without the agency of a physical process ... and it is that physical process that science investigates.

(2) Quantum Cosmology allows for the formation of countless eternal universes each generated by their own Big Bangs and budding off previous universes in a vast infinite ever-branching network. This is the weak anthropic principle and does not necessarily lead to belief in a Creator, (although it can do, albeit of the disinterested deist sort). Some of these Universes will be extremely short lived or dead. In some universes different laws will promote life, in others not. We just happen to live in one that does ... so no surprise there then on this account! Nonetheless, even the weak anthropic principle based on the "multiverse" model cannot answer the question:- "Why is there something rather than nothing?"

Some of these issues are spelt out a bit more hear by Dr. Michio Kaku ... a fine physicist and communicator. Read him on this subject here. Here is his web site:-

[Michio Kaku's Web Site](#)

His latest book, "Parallel Universes" is brilliant! (Can I have my cheque in the post

please Dr. Kaku? Thanks).

Another physicist called Steve Weinberg, is famous for this broody depressing comment from an old book of his "The First Three Minutes" ...

"It is almost irresistible for humans to believe that we have some special relation to the universe, that human life is not just a more-or-less farcical outcome of a chain of accidents reaching back to the first three minutes, but that we were somehow built from the beginning . . . It is hard to realize that this all [i.e., life on Earth] is just a tiny part of an overwhelmingly hostile universe. It is even harder to realize that this present universe has evolved from an unspeakably unfamiliar early condition, and faces a future extinction of endless cold or intolerable heat. The more the universe seems comprehensible, the more it also seems pointless."

It all depends on one's perspective. Here is the paradox of faith .... it gives the right perspective in the face of evidence that depresses some (Weinberg) and inspires others (Polkinghorne).

For years, as a child, I would gaze up at the deep blackness of the 1950's north country sky and be moved almost to tears at the sheer beauty of it all. I knew then that the Universe was an immense violent place, but to me it was just about the most convincing sign of a Creator that I could imagine. Some years later I came to know this Creator as my Saviour as well. You can imagine what this did to my spirit! Anyway, everyone's path is different albeit we can hint to others of different perspectives.

You might find this Roman Catholic's guy's answer to Weinberg's pessimism as enlightening. I like the bit about the Big Bang being the Big Bloom!

["The Meaning-Full Universe" by Benjamin D. Wiker](#)

What though of suffering, of death and of evil? *(the next paragraph re-edited: 1st February 2007 in the light of new discussions initiated by [Colin](#) for which this is the link on this site.*

As far as death in the Universe is concerned, I think as Christians we have to say that death was not part of God's original design for creation but rather arose from the Fall and spread out to the whole of the Cosmos. Likewise the benefits of Christ's victorious resurrection are by no means limited to humankind but, in the light of Romans 8:18-25 equally spread to the whole Cosmos.

We all have to die and I don't know, qualitatively speaking, how you can compare an 80 year old with a long terminal illness and an 8 year old killed in Hurricane Katrina. All I know is that life is an enormous privilege and gift for as long as it lasts. I think that our lives are God's little experiment not only to get sentient beings knowing themselves and the world around them but also, of course, God himself. Our deaths then become a harvest of that intelligence, consciousness, wisdom into that Greater Mind which is God Himself lovingly bringing forth ever new creations to his own joy and the joy of his creatures .... maybe eternally and without limit. To be consciously aware of that if only for three score years and ten is an immense privilege. I look forward to the time when we shall truly know and see him as a friend might, face to face.

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David writes ...

A very thought-provoking article!

From the purely scientific point of view, there is another possibility why the universe is the way it is - i.e. surprisingly well-tuned for life - without the need for

a multiverse or God in the conventional sense. This stems from John Wheeler's participatory anthropic model. It invokes the notion that we actively take part in making things real by observing them - a spinoff of the Copenhagen interpretation of quantum mechanics. According to this, the more we observe, the more reality-creating we do. Ultimately, in the far-future we - our vastly evolved descendants, that is - observe the finest details of cosmic creation into existence and thus initiate the process that will eventually lead to powerful beings that can be the means of their own... well, you get the picture! What you end up with is a sort of self-sustaining, self-sufficient, pick-yourself-up-by-your own-bootstraps - version of Einstein's "block universe". I wrote a book about this back in 1993 called "Equations of Eternity". Although I've since come to doubt the reality of it, having moved more toward spirituality as a way to address the deepest mysteries of existence, it does have a certain logical neatness about it.

Why is there something rather than nothing? The quickest - but not very satisfying answer - is that there can't be nothing. Nothing is the one thing that cannot, by definition, exist. I remember Mr. Kay, our old maths teacher (for the benefit of other readers, Father Gregory and I were at school together), asking a similar question: Why isn't the universe exactly symmetrical? Or, to turn that around, how did asymmetry enter the picture?

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### Fr. Gregory writes ...

Ah, Mr. Kay ... I loved that guy. He inspired me more than anyone to do Maths.

Anyway, David, I think I am write in saying that at the Big Bang there was one superforce and it was only after cooling that symmetry broke and along with it came into being the four elemental forces, (electromagnetism, the weak force, the strong force and gravity), along with all those subatomic particles and fields. In other words symmetry had to break for there to be life. The breaking of symmetry came about from quantum fluctuations that we still theorise today in the false vacuum of space. There is a sort of infinite regression though here. Perhaps we should be asking not so much why the Universe isn't symmetrical as why is the Universe so frothy?

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### David writes ...

It's the simple questions that usually tax science the most.

For instance, why should there be something instead of nothing? The Universe is so outrageously enormous and elaborate. Why did it - or God, if you prefer - go to all the bother?

Yes, I know that if the Universe wasn't more or less the way it is then there'd be no one to reflect on such problems. But that's a comment, not an explanation. The fact is, nothing could be simpler than nothing - so why is there something instead?

Science has started delving into the minutiae of genesis. No one bats an eyelid these days when cosmologists talk about what conditions might have been like around one ten million trillionth of a second after the moment of creation. And once we've got the tricky business of linking gravitation with quantum mechanics sorted out, then maybe we can push things right back to the very first instant of all.

Well, I've read the party manifesto on this and I don't buy it. I can go along with the quantum foam stuff, the good news (for once) about inflation, the quark soup and so on. That's fine.

I may not be able to imagine it - who can? But, as far as I am concerned, the fact that the Universe was an incredibly weird place  $10^{-43}$  seconds after "time zero" is no big deal.

What is a big deal - the biggest deal of all - is how you get something out of

nothing. Don't let the cosmologists try to kid you on this one. They haven't got a clue either - despite the fact that they're doing a pretty good job of convincing themselves and others that this really isn't a problem.

"In the beginning," they'll say, "there was nothing - no time, space, matter or energy. Then there was a quantum fluctuation from which..." Whoa! Stop right there. You see what I mean?

First there's nothing, then there is something. And the cosmologists try to bridge the two with a quantum flutter, a tremor of uncertainty that sparks it all off. Then they're away and before you know it, they've pulled a hundred billion galaxies out of their quantum hats.

I don't have a problem with this scenario from the quantum fluctuation onward. Why shouldn't human beings build a theory of how the Universe evolved from a simple to a complex state. But there's a very real problem in explaining how it got started in the first place.

You can't fudge this by appealing to quantum mechanics. Either there's nothing to begin with, in which case there's no quantum vacuum, no pre-geometric dust, no time in which anything can happen, no physical laws that can effect a change from nothingness into somethingness; or there is something, in which case that needs explaining.

One of the most specious analogies that cosmologists have come up with is between the origin of the Universe and the North Pole. Just as there's nothing north of the North Pole, so there was nothing before the Big Bang. Voila! We're supposed to be convinced by that, especially since it was Stephen Hawking who dreamt it up.

But it won't do. The Earth didn't grow from its North Pole. There was not ever a disembodied point from which the material of the planet sprang. The North Pole only exists because the Earth exists - not the other way around.

It's the same with neurologists who are peering into the brain to see how consciousness comes about. I don't have a problem with being told how memory works, how we parse sentences, how the visual cortex handles images.

I can believe that we might come to understand the ins and outs of our grey matter almost as well as we can follow the operations of a sophisticated computer. But I draw the line at believing that this knowledge will advance our understanding of why we are conscious one jot.

Why shouldn't the brain do everything it does and still be completely unaware? Why shouldn't it just process information and trigger survival responses without going to the trouble of generating consciousness?

You only have to read the musings of Daniel Dennett, Roger Penrose, Francis Crick and others to appreciate that we're discovering everything about the brain - except why it's conscious.

No, I'm sorry, I may not have been born in Yorkshire but I'm a firm believer that you can't get owt for nowt. Not a Universe from a nothing-verse, nor consciousness from a thinking brain.

I suspect that mainstream science may go on for a few more years before it bumps so hard against these problems that it is forced to recognise that something is wrong.

And then? Let me guess: if you can't get something for nothing then that must mean there has always been something.

Hmmm. And if the brain doesn't produce consciousness...well, no, that is just too crazy isn't it?

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### Fr. Gregory writes ...

I believe that it is literally impossible for the human mind to conceive of nothing. Here's my argument.

(1) Thought and logic always proceed from the familiar to the unfamiliar. If there was no (minute even) correspondence between reality and either sense recognition or theorisation both of which constitute the very basis of conscious thought or unconscious neural activation, then extrapolation could not proceed within the brain.

(2) Where there is the putative "no-thing" (where 'thing' is anything capable of sense recognition or theorisation), conscious or unconscious mental processes would be completely incapable of registering it as input, let alone extrapolating from it and interpreting it.

(3) Therefore, "no-thing" is closely allied with non-existence and humans have great difficulty in coming anywhere near registering mentally "no-I." Even in trance like states or states of non-cognition facilitated by Zen koans, the transition to that state is a "thing" that the brain registers even if the new no-I state cannot in any way be explained. Some religions of course transpose the problem so that "I" materialises somewhere else on the space-time continuum. Arguably we might then question whether the "I" is the same "I" that had gone before.

My conclusion, therefore, is that it will remain completely and utterly impossible for the human mind to conceive of "no-thing" and all its prepositional constructs, eg., creation out of nothing. Faced with this impasse the brain demands either total agnosticism concerning this aspect of reality, or, more commonly the reaction that "no-thing" is really "some-thing" somewhere else or in disguise.

We know that scientists do not like the multiplication of infinities and absurdities that arise from singularities, "summat from nowt" states. So, what do they do? They theorise strings which obviate the difficulties of both point like particles and out of nothing creations. This, also of course, neatly does away with troublesome religious and philosophical issues for if there always has been "some-thing" then no reality can ever be conceived of as logically prior to that any-thing if reality is itself eternal.

However, such a dodge round the problem violates Occam's razor in my opinion as creations, parallel universes and alternate realities multiply in a frenzy comparable to that of those infinities they sought to replace in the out-of-nothing creation accounts. There may indeed have already been and continue to be and unfold zillions of creations but the question of why there is something rather than nothing is not only unanswerable but literally inconceivable. There comes a point where self destructive nihilism or reasonable, intelligent faith based on the evidence is the only choice before us.

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### David writes ...

I agree completely. Following on from the first point you list, not only can we not conceive of nothing but, for the same reason, we can't really grasp infinity, timelessness, and the fourth or higher dimensions. Time is an intriguing problem both in physics and theology. We can't conceive of there being no time; yet, according to Big Bang theory, space and time came into existence at some point. What was there before Time Zero? And, if there was no time, how could there have been a transition from no-time to time, since the transition must have taken place in time?! Timelessness, spacelessness, and nothingness defy the brain's ability to analyse, it seems. Part of God, at least, presumably exists outside conventional spacetime, in some mystery state that our minds cannot apprehend.

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## DISCUSSION 2: OUR SENSE OF TIME



### Fr. Gregory writes ...

The universal human experience of time is that it flows, it passes, it moves on ... quickly or slowly of course, but the image is that of a river that flows past us or carries us along. The trouble is that this is not how contemporary science handles time. Space-time, the four dimensions in which we live, move and have our being is a block concept in which past, present and future are merely different coordinates specified by an observer.

On this account, time has no absolute character, it exists in a relational manner, wholly dependent on movement and change. Even if our human sense of time is really put down to a trick of consciousness there are even some who would describe consciousness itself in similar relational terms. It seems as if we are condemned to live out our lives wholly dependent on a comforting illusion.

It strikes me though that this is a rather strange way for evolution to have driven human development. Normally evolution is a most realistic engine for life; it assists an organism adapt to its environment for the purpose of survival but here we seem to have been prepared for life with Alice in Wonderland. Maybe the White Rabbit should chill out and take on a different perspective! But why should this be so difficult? Could it be that we should not completely distrust our senses or perhaps, to take the other option, we should rather organise our social lives counter-intuitively on strictly scientific principles? Of course for most purposes we can pretend to live in Newton's absolute universe but with our subjective sense of time this really does raise very difficult issues.

There are, of course, philosophical and religious issues concerning time. From my own Orthodox Christian tradition a distinction is made between *chronos* and *kairos*, sequential time and fitting or appropriate time. The former is value (if not observer) free, whereas the latter requires a subjective, interpretative input. Perhaps this is what consciousness has been designed to achieve ... an adaptation of time for human purposes. Perhaps we are not slaves to the clock after all.

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### David writes ...

The notion that times moves by us or, alternatively, that we move through time is something we're all brought up with. It then becomes very hard to think of time in any other way. But even this familiar concept of moving time has its problems, because if time moves or we move through time, then another order of time is needed against which to measure the movement! Then we're quickly into an infinite regress. (I recommend J. W. Dunne's classic "An Experiment With Time" for an entertaining theory of time - and mind - based on this regress.)

But the block universe of relativity, in which all of space and time is already (whatever that may mean!) laid immutably also creates difficulties, as you say. For one thing, it makes all of existence seem extremely pointless. Since every detail of physical reality - past, present, or future - is already determined, we

have, in truth, no freedom to bring about another outcome.

What interests me greatly is the meaning that can be attached to the present moment. There's no "now" in physics - no notion of a special moment in time. Yet to us, individually, it is everything because it's the split-instant at which our consciousness resides. Without consciousness, past, present, and future are stripped of meaning.

Let me ask you, Father Gregory, about your belief about time as it relates to God. Cosmologists say that both space and time came into being in the Big Bang. Hence, there was no "before" the Big Bang in any meaningful sense. Yet, presumably, God exists both within and outside our material cosmos and was instrumental in its creation. If there was no "before" the Big Bang, how are we to grasp how God could have been active since activity of any kind appears to demand time.

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### Fr. Gregory writes ...

As it happens, Judaism, Christianity and Islam all agree that space and time were created along with the physical universe. At least in our Universe there was no space or time "before" or "in place of" the four dimensions of the space-time continuum which "now" is the context for all existence and consciousness.

The "present moment" is a slippery idea. No sooner do we try and capture it and it becomes locked into (our) past. We may anticipate a future moment as "present" at some point of the space time continuum. No sooner has our lifeline intersected at this point than we face the same problem; the coordinates recede (or appear to recede) from our consciousness. Yet, we do not live either in the past or the future.

[Metropolitan Philaret of Moscow](#), an outstanding bishop of the Russian Orthodox Church in the 19th century wrote the following:-

"All creatures are balanced upon the creative word of God,  
as if upon a bridge of diamond;  
above them is the abyss of divine infinitude,  
below them that of their own nothingness."

That diamond bridge is *both* our 4 dimensional coordinates and the sustaining of the Cosmos, moment by moment, (if we can speak in such a manner) by the creative word of God. It is not that God somehow kick-started creation and then sat back to watch the firework display. Still less is creation some sort of gratuitous unnecessary extra added ingredient conjured up to displace a scientific description of physical processes. That which God represents in creation is, as I have said, a sustaining power. Without his continuously creative word all would immediately collapse back into the singularity.

It follows that the present moment is God "saying" (continuously) "BE!" Living truly "now" (rather than in our memories or dreams, essential those these are) involves living continuously with our consciousness connected to this creative word.

"Before the Big Bang" is a meaningless phrase both in cosmology and the aforementioned religious traditions when applied to THIS Universe. In the conjectural Multiverse where there are many alternate, parallel realities, arguable there is still only one (mega) Cosmos. If THIS Cosmos had a "beginning" from nothing, then the same argument applies. If God has always been creating then we need to provide a model of divine activity that allows for both limited and unlimited creations. Such a model exists in radical monotheistic transcendence.

Happily, in those monotheisms where God is infinitely transcendent to all created categories, his activity requires neither time nor space for he cannot create within a creation thereby necessitating space and time which themselves must be created. To speak of time and space in relation to God's Being is to speak nonsense as surely as it is to speak of created existence *without* space and time. God, being Uncreated and Transcendent has no such limitations. Paradoxically,

for this reason he also has the capacity to self limit in order to manifest himself within a particular creation. Be that as it may, it is radical monotheistic transcendence, omnipresent spatially and temporally, that makes most sense of the world that we see around us ... or so this writer thinks.

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### David writes ...

"Now" is such a mind-boggling concept. There seems to be just one now - the wavecrest of the present that continuously separates past from future. For us, the very nature of consciousness seems to demand existence at just one moment. Our awareness is like a spotlight that illuminates just one split-second at a time. I can't even conceive what it would be like to be aware in reality across a span of time. (I'm not referring to memories or future speculation here but actual, trans-temporal mindfulness). Yet I presume God has this awareness - awareness that spans, in one awesome totality, all of spacetime, in this and any other universes. So, as you describe it, He must be sustaining all of these points in space and time simultaneously - saying "BE!", always and everywhere. For Him, there is, I'm supposing, no sequential time or specific now but rather an all-encompassing, omnipresent now. **Is that how you see it?** Also, I'd like to hear more about the meaning of "kairos" - the kind of time that the physicist is not familiar with. Does this refer to key moments in history at which God acts, or is compelled to act, in particularly decisive ways? Also, since God is omniscient and must somehow know how the play will unfold, what does that say about the extent to which we truly have any free-will?

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### Fr. Gregory writes ...

Everything you have said David before **"Is that how you see it?"** is a highly accurate and lucid description of my position, reflecting also Orthodox Christian teaching. You have also correctly identified "kairos" as used in the New Testament, save that compulsion qua God may only be predicated by Infinite Love, not any other kind of necessity.

The more difficult question of course is the last. In Tom Stoppard's classic play, "Rosencrantz and Guildenstern are Dead," two minor characters from the play, "Hamlet" stumble around unaware of their scripted lives and unable to deviate from them. In this Stoppard mirrors Stephen Hawking's famous "chronology protection conjecture" by which the past remains the past. Like the play and Calvin's topology of heaven and earth "all is fixed."

I really do think that Calvinism's conception of divine sovereignty and omniscience / omnipotence has bequeathed a fatal legacy to western theology ... even amongst those who would most strongly repudiate Calvin. We need to paint a new picture of human freedom and divine sovereignty ... one where one does not collapse into the other. A similar challenge lies before those who would seek to reconcile a completely self regulating Cosmos and the same Cosmos as one totally dependent on God. Richard Dawkins has referred to any theology beyond the chance product of emergent complexity as "gratuitous." I want rather to suggest that we appreciate a model of God's action which maintains creation's freedom and in which gratuity as "gift" is a vital part.. In this model, without God, creation would not be free at all. It would collapse under its own weight, a dead thing. That is quite a different conception of God's action and foreknowledge. In a sense we could say that God is continuously writing the Play of Life as the actors respond within the plot. The Orthodox Church has a theological term for this mutually enhancing freedom of creation and God ... synergeia. Synergeia means that God's freedom engenders ours and vice versa. That would make a completely different rewrite of Rosencrantz and Guildenstern ... and a much better account of the relationship between God and Creation in my view.

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### David writes ...

This notion of *synergia* is quite compelling and links up with something I mentioned in our earlier conversation about why there is something rather than nothing. I went through a phase in the early 1990s when I was greatly enamoured with John Wheeler's Participatory Anthropic Principle (my book *Equations of Eternity* was based on it), which sees the universe as pulling itself up by its own bootstraps. Basically, the universe comes into being and then evolves to the stage at which it can observe itself into being through quantum observership. If we accept that quantum systems don't become fully realized until they are observed - "fully realized" and "observed" being very loaded terms! - then it may be that global observership is needed to select and "actualize" the particular universe we are living in. The fact that the inhabitants are active in defining their cosmic home and place of origin ensures that it is fit and necessary for their existence (thus explaining so-called cosmic coincidences). In this scheme, there is a mutual interaction of mind, matter, and mathematics (or the laws of physics) at the root of reality. But later, I must admit, although I was satisfied by the logic and self-sufficiency of Wheeler's PAP, it seemed curiously sterile and pointless, as if it left out everything that was of personal interest and meaning. Is it possible, however, to see in the PAP a kind of physics-only aspect of the Orthodox position - in other words, what someone might conclude about the way the cosmos was set up if they chose not to believe in God? The Godless PAP could be seen to work in an academic sense but is devoid of purpose, morality, love. The synergia you describe adds the vital ingredient that gives existence any point - our realization not as mere physical entities but as moral, spiritual beings. I could see in a God-infused PAP the scope for human freedom of determination, from the quantum level up, within a framework that is bound toward some inevitable global conclusion with a spiritual root.

To take your play analogy further, if we are actors within the Play of Life then clearly we are here through courtesy - grace - of the Playwright. We are only given meaning through divine intervention. Is the reverse also true? Is God's existence given purpose through the lives of intelligence and consciousness throughout the universe? Is God even in some way fully realized through our realization?

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### Fr. Gregory writes ...

I wholeheartedly endorse your first paragraph David. Sign me up for "God-infused PAP"! Now to the intriguing question in the second.

Although the answer to that last question David is necessarily speculative since we must maintain a certain agnosticism about God's own inner purpose and realisation in relation to creation, nonetheless your characterisation has the great merit of taking the creation seriously as a dynamic purposeful entity once consciousness activates / is activated in relation to its transcendent ground (God).

That God might himself be "satisfied" by the evolving character of his consciousness imbued Cosmos and that in this satisfaction his own inner being might be augmented need not necessarily fall at the fence of God's matchless perfection.

We might take an analogy from mathematics in [Cantor's](#) 19th century work on the hierarchy of [infinity sets](#). (Thank you for your links here David!) Therefore, to the objection "how can one improve on infinity?" (substitute "God" for "infinity") one might respond that this is a malformed question. It is not a question of "improvement" but, rather, how God's perfection becomes realised in a higher order of relation; relation that is to something "not-God" ... in other words, creation.

One can see something of this process in Olaf Stapledon's great work: ["Starmaker."](#) Here, the Creator in a sense becomes himself through the evolution of his creations. Perhaps in Stapledon's work there is an insufficient sense of the relation between Creator and creation. Einstein never could quite affirm that either. Somehow, it is thought, the Universe is so vast and *seemingly* impersonal

and oblivious to us that we must conclude that God (if he exists) is a toymaker who cares nothing for his toys. He plays with them, breaks them, as might a child, and discards them without a second thought. No human father or mother neglects weaker more sickly children that the stronger might survive. How can God's parental morality be less diligent than that of humanity at its best? Surely this "god" is unworthy of our love. Indeed he is.

The difference, the "added value" if you will from a Christian point of view (and more especially from an Orthodox Christian point of view) is that God, in the Incarnation, as a special example of a more universal principle, subjects himself to the vicissitudes of his evolving creation. He really does become exposed to the tragic as well as the exultant part of the creative process itself, "even unto death." (Philippians 2:1-11). Through this exposure he is able to bring creation to its fulfilment, proleptically in resurrection and, moreover, he grants participation of creation Now in that End. In conclusion I must speak of that participation, which is an ascent.

[St. Gregory of Nyssa](#) who died in about 395 AD is one of the key eastern fathers in respect of stretching forward toward the Infinite (God) in the ascetic life. He sees humanity's calling as one of Infinite Ascent into the Limitless One whereby the whole Cosmos is transfigured (as humanity is a microcosm of the Cosmos). If this is true, which I believe it is, then our vocation in time is to be part of God's final purpose for the Cosmos which is to attain to the Unattainable, a high calling indeed, made even more glorious by the prospect that God himself through this manifests his own glory, a glory which is inextricably tied up with our own in *synergeia*.

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#### David writes ...

Stapledon's "Starmaker" sprang to my mind, too! Nothing else in SF comes quite so close to spectacularly portraying what an all-powerful being might be capable of. Yet, as you say, the Starmaker seems often to suffer from our own weaknesses - growing bored with his creations and tossing them aside when they don't work out they way he'd hoped. One of the problems I have with my simplistic interpretations of the Old Testament is that the OT God seems behave exactly this way - flooding us into near-extinction when we don't measure up to expectations, etc!

The cosmic scheme you espouse in your last post, Father Gregory, is very attractive to me, both scientifically and spiritually. I'm still struggling, however, over some issues regarding the extent of God's omniscience and our own apparent impotence - which returns us to the nature and necessity of time but places more questions over the extent of our freedom of action. The Resurrection is an integral and essential element in the fulfillment of God's creation, as I understand what you say. So, the events leading up to the Resurrection - the execution of Jesus, etc - in some way had to happen. Hence, God must have known "in advance" what would take place. This gave the executioners of Jesus no real choice - they had to play their part, however dastardly, in order for the cosmos to turn out the way it has and will. It seems that God required that some people be prepared to kill his Son in order for the cosmic plan to work out. This seems like prejudgement of a high order. I know, as you point out (though Stephen Hawking might disagree!), that we can't know the mind of God. But how can it be that to save Man and allow the universe to realize its full spiritual potential, some individuals were required to commit the ultimate evil?

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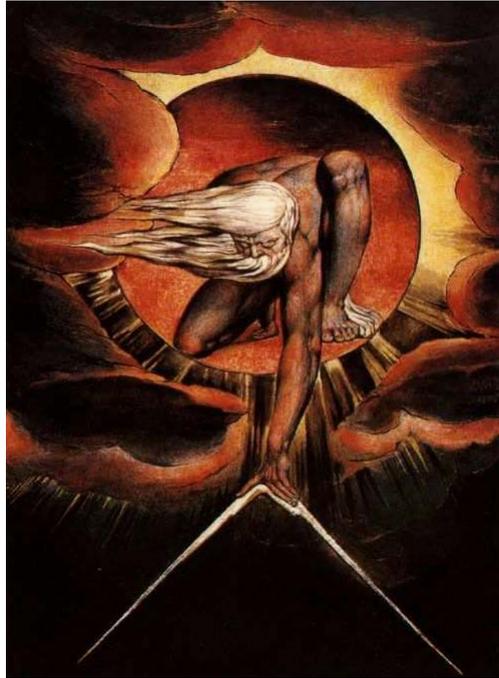
#### Fr. Gregory writes ...

Let's pen an alternative gospel David. Jesus experiences opposition but is not killed by others but rather dies naturally of old age in his bed. Through a long life he continues to heal the sick and manifest the Kingdom of God, showing us all how to be reconciled to God and each other and how to live. Upon his death, 3 days cold in the morgue, HE STILL RESURRECTS. There is nothing at all pre-determined about his life. Sin still exists and virtue also. Death still remains the final enemy;

the resurrection its undoing. To be an Orthodox Christian is to completely unlearn Augustinian determinism in both its (moderate) Roman Catholic and (extreme) Protestant form. In the Orthodox frame of reference; if hell exists, we are responsible for creating it, not God, and God is well able to "uncreate" it ... indeed this is what we believe the POTENTIAL of the resurrection means for all the Cosmos (or Multiverse). Orthodoxy is indeed a very different way of being a Christian!

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### DISCUSSION 3: INTELLIGENT DESIGN



For Fr. Gregory's Blog article on "**Orthodoxy and Creationism**" go [here](#). It has some relevance for this section of the debate.

Welcome to another correspondent! Gillian Peall

Gillian writes on a connected issue ...

Intelligent Design (ID). I've heard several versions of this. One end of the spectrum being, basically, Young Earth Creationism without the young earth! If evolution is allowed at all then it is controlled evolution, by God, and nothing to do with chance mutations and what have you. And a lot about if we had so much more or less oxygen/atmospheric pressure, or were further from or nearer to the sun, we wouldn't be here - just seems to make us unique in a very self-centred way. At the other end of the ID spectrum, all that is said is that God=Creator-with-a-plan.

This is where I get confused! I know we can't say 'before' the Big Bang, (BB), as there is no 'before'. But if God is Creator, then he must have pre-existed the BB. But can you talk about God 'pre-existing'? If he is beyond time and space, which he must be to be God, then everything is 'now'. Including the BB and today.

Is this so? When I think about the vastness of the Cosmos my mind alternately worships God and wonders about his existence! I can't believe that *homo sapiens* is the only sentient life-form in our galaxy, let alone among the millions of other galaxies. But I don't believe man will find that out before the end of our world. Whenever that is. And I have to confess that the return of Jesus is another of my

deep, deep doubts!

So, is ID a reasonable concept? I believe all that geology, astronomy, physics and the biological sciences tell us about the age of the universe, the earth and how the flora and fauna of this planet evolved. But presumably God didn't just light the blue touch-paper and retire! I can't imagine the God I read about in the Bible being surprised by how things turned out. ("Good grief! There's a man!") And this is mainly because he must know, if he is God.

Sometimes I imagine everything like a huge tapestry wall-hanging, like they had in medieval castles to keep the draughts out! It tells a story, starting, say, at the bottom left hand corner, with a man setting out on a journey. Then a few inches further in, we see the same man having a problem, and so on until he reaches the other side of the tapestry and gets to the castle/distressed maiden/home. But we can only see one spot at a time - the 'now' for ourselves. We can't even see the 'now' for other people, only where our spotlight catches them. The 'tomorrow' and the future is invisible, the past badly lit and fragile. But God, as God sees the whole tapestry, from first to last, alpha to omega. And more, for he sees the whole cosmos.

Is this ID? Or a fragment of my imagination? I'm never sure how God can, or does, influence things. As you know, I have trouble seeing him as a personal God who loves me though I never doubt that he is a good God. Nor do I have trouble reconciling the Almighty God of the Cosmos with the God in the design of a snowflake, or the beauty of the smallest of cells. I can, just, hold that paradox together. I think it just makes my worship and wonder greater.

I do struggle though. Are there really any answers? Can faith ever be black and white, right or wrong?

---

#### Fr. Gregory writes ...

From where I am standing your description and explanation makes perfect sense. The trouble is that "Intelligent Design" and "Creationism" represent movements, themselves diverse, which are flawed in their understanding of the relationship between revealed truth and natural science. We don't need to use them. Let's sketch a few issues.

Evolution works through the genetic flexibility conferred by mutation. For atheist, deist and creationist, ID-ist alike, divine activity is recognised not just by purposeful outcomes but by foreknowledge, intervention and planning. The trouble for science with this tweaking God is that it introduces a non-scientific variable (God) in a process that for them must be explained wholly and solely by natural processes and laws. The atheist simply says:- "there is no Maker, Tweaker." The deist says:- "there is a Maker but he doesn't interfere after kick-starting the process." The creationist says:- "there is a Maker and natural processes are only incidental phenomena revealing God's purposeful activity, (and since as a literalist as to the Bible), preferably or definitely without evolutionary mechanisms. There's a whole spectrum there but what unites them all is the problematic nature of chance, of randomness. Atheists rejoice in it as a supposed God-killer; creationists reject it on exactly the same grounds. They are both wrong in my opinion. The faulty assumption is that God cannot and / or does not work through chance.

The tapestry analogy is very good and has a long provenance in Christian apologetics. For all its truthfulness though, it is a bit of a "cheat" when it comes to accounting for chance. It's not that we can't see the whole that accounts for chance. One could imagine a Universe without chance in which we still didn't see the whole. These are separate issues. When the Universe functioned according to Newton, a deterministic picture of forces and measurable events, theoretically, if one had enough data one could map out the course of the Cosmos to its conclusion. Isaac Asimov wrote a science fiction trilogy called Foundation. In this he envisioned a galactic empire whose social function, notwithstanding apparent

human and alien free will, was as deterministic as any pendulum clock. The whole future of the galaxy was simply an extraordinarily complex but predetermined game. Raise this up a notch or 3 to the level of the Cosmos and you have a God who is not free (because he is constrained by the predictability of the Plan) and humans who are not free (because they are merely actors in the Plan. Since Einstein and especially since the development of quantum mechanics, that deterministic Cosmos has simply collapsed at the point of describing the very small and the very big. Einstein was himself wrong in one aspect of theology. To turn on its head his objection to quantum mechanics:- "God DOES play dice!"

Now John Calvin with his double predestination and all-God-or-nothing approach might be happy with cosmic determinism but an Orthodox Christian cannot (and to be fair ... neither can many other Christians). We are free. The Cosmos is free. Evolution is free. We can and should say that God sees the whole from eternity but it's still a dodge from the pressing question of the nature of OUR existence right here and now. We are part of the space time continuum and we can't simply say that God is beyond all of that so we can be as well. So, how do we make sense of real, true chance and God's activity in the light of that?

Here is a tentative approach.

(1) Creation and life within creation is purposeful in the sense that complexity is an emergent reality from very simple matter / energy wave units interacting with each other according to rationally accessible "laws" but which are, at the subatomic level probabilistic, NOT deterministic.

(2) Such complexity which gives shape to creation and life is hard wired into:-

(a) The initial conditions of the Big Bang, (which, if there are many Universes succeeding each other cyclically might have been carried over in an evolutionary manner from previous creations).

(b) The interaction of matter and energy as the Cosmos cools and entropy increases (complexity crystallises out of increasing disorder ... as paradoxical as that might seem).

(3) God is not merely responsible for 2(a) but for 2(b) as well. This would be the deterministic view. The creation is a "work-in-progress." The cosmos and life is a fine tuning which continues precisely because true randomness and chance exists! Without this ability to GROW (and growth requires movement) the Cosmos would be nothing than a huge piece of clockwork and God an absentee Clockmaker.

So, God's creative activity is the same as what happens in the random flux of 2(b). We can't see DIRECTLY how he does it (the tapestry DOES apply at this point) but faith and experience can claim that chance ALONE cannot account for the emergent complexity and purposefulness of creation and life. Chance without a wider view direction would be just as likely to generate a degrading, dissolving Cosmos as one that shows genuine signs of growth and development.

These problems only arise, I submit, because atheist scientists and fundamentalist believers alike can't cope with freedom. God and freedom are thought to be incompatible. Well, in Calvinism they are and the philosophical roots of the relationship between science and religion in the west have a very definite Calvinist input. For those Christians, however, who are not rattled by freedom, either as to God or the Cosmos, there is no problem. It also makes it much easier to believe that this Creator God loves us BECAUSE he gave us this freedom.

An illustration from the day to day life of faith will suffice. Have you experienced one of those incredible coincidences when something has happened in your life just at the right time with a set of events so highly improbable as to be impossible? I know I have. These are often very personal happenings not easily conveyed to others. Are we free when such things happen? Of course we are! Is God free? Of course he is! Then how come such things, such improbable things can and do happen? Well, let's take a leaf out of the art of a playwright. God is such a consummate playwright that nothing lies beyond his capacity when he writes a script that writes itself into his purpose. The cusp of this paradoxical joining is prayer where our consciousness meets with God's consciousness. At that point the whole Cosmos becomes ablaze if only for an instant.

Perhaps let me have your further thoughts. I hope this helps.

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### Gillian writes

Could you enlarge on this statement ...:

*"To be an Orthodox Christian is to completely unlearn Augustinian determinism in both its (moderate) Roman Catholic and (extreme) Protestant form. In the Orthodox frame of reference; if hell exists, we are responsible for creating it, not God, and God is well able to "uncreate" it ... indeed this is what we believe the POTENTIAL of the resurrection means for all the Cosmos (or Multiverse). Orthodoxy is indeed a very different way of being a Christian!.*

### Fr. Gregory writes ...

Certainly Gillian!

One of the most disastrous legacies of St. Augustine to the Christian west has been his doctrine of double predestination. In this doctrine he asserted that human choices for and against God (heaven or hell in their consequences) are false and illusory. God directs the response for in no way can his power and responsibility be diminished by anything human. Double predestination asserts that even the damned have no choice in the matter. God has chosen their fate as well. In his latter life Augustine became very sombre, even morbid in his preoccupation with human depravity and the transitory nature of this life. He lived to see the barbarian horde destroy a once cultured and lively North African church (where he was bishop), Perhaps this explains the dark turn in his later thought that, arguably, made God the author of evil as well as good. A negative assessment of human freedom and human nature, in evidence since his youth, now reasserted itself much more strongly. Much of this theological determinism was honed in Augustine's disputations with the British monk Pelagius who asserted a much greater role to human freedom than most Christian theologians and Augustine in particular were prepared to allow. One cannot avoid the conclusion though with St. Augustine that the more he emphasised grace and God's sovereignty, the more he denied any aspect of human freedom whatsoever.

The Church in the west never accepted the more extreme aspects of his thought. Indeed the famous monastery at Lerins challenged and tempered Augustinianism in the Catholic tradition. In this, the west remained at one in spirit with the Christian east where Augustine was never such a significant figure. At the Reformation, however, Jean Calvin, in particular, fearlessly took up the standard of Augustinian grace and for the greater part of the Protestant world consolidated its position. It's noteworthy that most of the Reformed Tradition in recent times has either clung tenaciously to double predestination in a shrinking sectarian constituency or abandoned it altogether and become universalist. The cultural heritage of this theology in the post-Christian west has been much more persistent such that it is now almost impossible nowadays to converse about God without the objection arising that theism is fatally compromised by evil. Well, if God is the source of evil, then yes. One then either has to deny the reality of evil or suppose a dualism in which Satan becomes God's equal adversary. Either way, human freedom is still not accommodated ... nor can it be whilst the religious infrastructure remains unmodified Augustinian or Calvinist.

I hope I have showed in some measure here that Orthodox Christianity has a very different take on human freedom, the evolution of the Cosmos and God's activity.

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### David writes ...

As pointed out, both creationism and ID span large spectra. However, it's becoming increasingly difficult for anyone - scientists especially - to give publicly any kind of credence to these ideas without immediately being pigeon-holed with the rabid Religious Right. And so the debate and debaters become

increasingly polarised. Yet, surely, what's being proposed in our conversations here is that God is the overall architect and designer of the cosmos and therefore that (lowercase!) intelligent design is indeed a fundamental principle.

I'm intrigued by Father Gregory's assertion that randomness is an essential element of the universe as he understands it. Do you think this God-instigated randomness is effectively the uncertainty principle we see in quantum mechanics? In other words, did God inject quantum uncertainty into the cosmos to give it the necessary freedom of action and evolution? Of course, there are those - disciples of David Bohm - who are still hoping to find hidden variables at work which would take the randomness out of the subatomic realm. In a sense, are you saying, Father Gregory, that Orthodoxy would expect those efforts to fail?

And this gets me on to another point. It's the contention of supporters of ID that the complexity we see in the universe could not have come about by chance alone - that it must have been supplied (by God). In other words, they are saying that high-order complexity alone stands as a scientific (or at least a logical) proof of the existence of God. And, as Gillian says, they say there are too many very special conditions required for life for these conditions to have come about with divine intervention. Nonsense, replies the atheist scientist. Complexity - or the propensity for it - is just another one of those things that the universe happens to have been born with. Of course the universe is complex, they argue, because otherwise we wouldn't be here to wonder about it. There could be countless trillions of non-complex, essentially randomly-structured universes "out there". We just happen to be in one that has evolved, and by good fortune had the built-in qualities, to become wonderfully ornate. So, I ask two questions. How is one to answer this challenge from the atheist scientist? And second, is there, in fact, any way that science can prove, beyond reasonable doubt, the existence of God, or are all such efforts ultimately doomed to failure? After all, if we could supply very strong evidence for God through science, who would need faith?

Oddly enough, as a scientist, I always find myself feeling most removed from a Christian God when I contemplate the vast, objective cosmos of astronomy and physics. In those moods I become quite Buddhist in my thinking. But when I switch to the personal, to the individual, then I'm more in tune with the notion of a caring Creator who's mindful of each one of us. For me, science as it's normally practiced and understood seems to take me further away from Christianity.

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### Fr. Gregory writes ...

I think I need to tweak and clarify my own thought about randomness here David. It is not so much randomness itself that is required but the freedom of the Cosmos to evolve its own complexity, and with it, life. Freedom within the realm of inanimate or unconscious matter translates to randomness-within-law. Freedom in the conscious real translates to purposefulness-within-law. Consciousness is a higher order freedom for matter than mere randomness because with this comes a boost to complexity and purposeful self-reference ... the Cosmos knowing and directing itself, self aware evolution if you like.

There is an inherent, God given power of growth here that can only work when there is freedom. A similar argument can be made for love as the highest level order of complexity; in a slogan, "no freedom, no love." In this [essay](#) Father Deacon Andrey Kuraev refers eloquently to the God give inherent creative power of the Cosmos itself, evoked by God ... "Let it be!" God does not create a finished product but rather a potentiality, and materials over which he invokes a word, (the Word).

I, therefore, disagree with most (if not all) proponents of ID in so far as they reject even in the slightest degree the freedom of the Cosmos to be itself and to generate its own complexity. I also disagree with the atheist whose only objection to God is that there are possibly many universes which don't work or "take" as far as life is concerned. How could we possibly know what significance those worlds have? We have no data to reject God simply because of an all too human understanding of "wastage." As far as your second question is concerned,

nobody, believer alike, can prove the existence of God. We may propose evidence of design in complexity, albeit generated by the Cosmos itself in response to the putative divine 'fiat.' Decisions of faith may be based on such intimations, tendered more plausible; but at the end of the day one has to decide for oneself how to "read" the world ... which brings me to your last personal reflection on a personal God and a seemingly impersonal Cosmos. I can only offer you my own ruminations about this based on my own experience, thought and spirituality.

When you and I were at school together David and I shared our passion for science and astronomy (as we still do) I developed an unshakeable conviction that God existed and my evidence toward that decision of faith was precisely the vastness and beauty of the Cosmos. I could not (and indeed did not) derive from that alone though my belief that (to paraphrase) "every hair on my head is numbered" and "not a sparrow falls ...". For this more personal dimension of faith I encountered Christ himself in the lives and faith of Christians. They had a relationship with Christ and a reality to prayer that I found utterly fascinating and compelling. However, I only met those people for two weeks of my life when I was 22 years old. Everything that has happened subsequently in my life developed out of that first step of faith I made in 1975. It was and is a matter of experience, not conjecture, that I came to know Christ as the human face of God.

Since then and continuously I have returned to science many times to deepen my understanding of this wonderful Cosmos and this wonderful life that I have been privileged to share albeit for a short time. I cannot believe that such beauty is without meaning for beauty is meaning and beauty is Christ, (for me at least). I have not, therefore, experienced any disjuncture between my knowledge of God as Creator and God as Lover. Even suffering and death itself has not shaken that, primarily because in my faith Beauty itself was crucified and rose again into a New Creation.

Maybe this is because there is a place for certain Buddhist truths in Orthodox Christianity as well! I certainly derive much insight from the Buddha's characterisation of the impermanence and flux of all material existence. Where I must part company with him of course is in the basic agnosticism of a faith that has rendered the gods "useless." But, Buddhism's antecedent background is Hinduism not Judaism; so I am not starting from the same place.

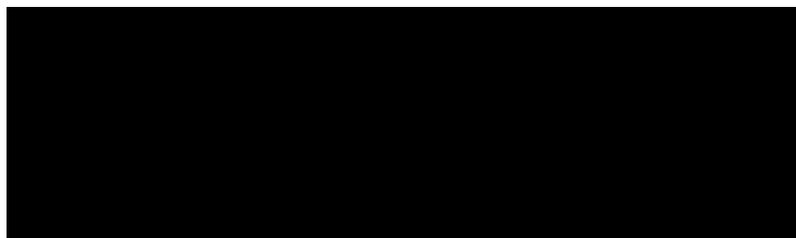
I have to speak of what I know and, notwithstanding my sin, frailty and finitude, I know Christ. He is the Pantocrator (as we say in the language of the Christian East). The King of the Cosmos.

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**NON-ORTHODOX BUT INSIGHTFUL AND COMPATIBLE WITH  
ORTHODOX THEOLOGY**



## DISCUSSION 4: "WHAT IS TRUTH?"



David writes:-

I was thinking it would be a good idea, on the subject of bridge-building between different belief systems, to ask not what we believe but why we believe what we do. Is it because of happenstance or upbringing, or because it makes us feel comfortable, gives us security or peace of mind, or helps bring meaning to our lives? Why do people, who are members of a single species inhabiting the same planet, arrive at such a variety of different beliefs, religious and philosophical? And where does science fit into all this? Science, too, is built largely on beliefs and even faith -- faith that the world is orderly, that the scientific method works, that the efforts of countless investigators is valid and can be trusted.

Fr. Gregory writes:-

Why do we believe what we do? Why is there such a great diversity of beliefs globally? What can be trusted?

The trajectories toward belief are manifold and have different forces and conditions impelling them.

For some belief is a more or less uncritically received aspect of culture. A shamanistic tribe lives according to certain beliefs about the spirit world. There are no schools beyond the training and initiation of a new shaman as an adept of an older practitioner. The tribe has certain understandings and expectations of the shaman in the way that those ignorant of orthodox medicine trust and depend on the expertise of a doctor. Beyond that there is little need of analysis in the culture outside those "in the know."

In some belief systems a sacred text, codifying revelation to a prophet or guru has pre-eminence. This has authority within the guided community as the voice of the divine. Here there is a certain democratisation of the cult. Anyone through literacy and / or memorisation can gain access the truths of the text. Where the text may be variously interpreted there may be established commentators and schools but all may access these as well. There is no cultic hierarchy. The text and the interpretation of the text is everything. One thinks here of conservative evangelical Christianity, Sunni Islam or Sikhism.

In other belief systems mystical experience can trump codified religious law. The Buddha for example did not leave behind him an authorised established canon of religious writings. His disciples had his teaching, the community and the call to Enlightenment. Mystics may surface in religions that focus on a text. One can think of the trouble al Rumi caused for himself within Islamic orthodoxy where he prioritised not place or belief but the religion of the heart. Christian mysticism likewise has had a troubled relationship with the established order. In Orthodox Christianity St. Symeon the New Theologian is one of only three persons designated "theologian" yet in his life and his work he was attacked for sitting light (as his detractors saw it) to established religious authority.

Some religious intuitions defy categorisation and are more individualistic and ephemeral. Some connect with reason and critical enquiry; some don't. Some draw deeply from the well of human knowledge others are more dualistic and world denying.

Who is to decide between all of these? Is it not impossible to negotiate the competing claims of extremely diverse paths and orthodoxies, of the multivalent apprehensions of the divine? I contend that the study of comparative religion is not an idle one nor are its objectives futile. Diversity of expression does not always indicate radical difference in content. The Tao and the Logos have obviously different provenances and articulations in the philosophy of ancient Greece and China, yet both overlap in their intuition of a divinely rational and fecund cosmos. Is the Pentecostal practitioner of ecstatic prayer that different from the shaman? Are monotheists of differing religious traditions worshipping different gods or the One God in differing expressions? Is God beyond all of these things or to be found in all or some of these things? These are the questions upon which believers and non-believers alike disagree. However, that dialogue is possible; that comparative study has yielded fruit; that certain religious teachers have been able to speak a universal language without sacrificing the distinctiveness of their own ... these facts fill me with hope.

St. Justin Martyr was an early Christian philosopher convert. He had this broader vision, this enlarged heart that in Christian terms comes with the indwelling of the Holy Spirit. He was prepared to affirm that Plato served the Greeks in the same manner that Moses served the Jews as heralds of Christ. His vision of truth was unitary. His voice in history has been neither singular nor exceptional.

How does science fit in to all of this?

Science has truth concerns that are not of the same character as the religious, metaphysical or philosophical. Serious errors are made when these truth variants are confused; when religion is forced into a scientific mould or when science is forced into a religious mould. Different methodologies and research tools are applied to each. Even aspects that might imply some common ground can never be extended too far. Evidence, reason, falsifiability apply as much in most religious traditions as they do in science yet within a different range of applicability and confidence. Likewise, modelling, belief, inspiration also play their part in science; but again the range and confidence one places in these human faculties and their role within the whole differs. If science and faith are allowed to get on and to listen to each other much may be achieved. If an antagonistic relationship is presupposed there will always be more heat than light and that is never good. Yet for all of the dangers inherent in any encounter, both disciplines need to remain in dialogue for in the End there can only be one Truth amidst and encompassing all the diversities. Some call that Truth God. Some do not. We shall all know one day perhaps.

### David writes:-

Of the many factors that shape and influence belief, a particularly powerful one, I suggest, is our early environment -- the experiences and circumstances we are subjected to in our first few years when much of our neuronal wiring is taking place. As far as religious belief goes this is obvious. The majority of people follow the faith of their parents and immediate family, or some approximation to it. And that faith, in turn, is largely, a geographical accident. Most Indians are Hindus, most Italians are Catholics, and so on, not because these systems are obviously more true, but because they are the locally accepted claims to spiritual authority.

I agree, therefore, that it's important to look to comparative religion for some understanding of what is common to all deep faiths and spiritual philosophies, and what therefore is most likely to be existentially valid. Among these appear to be: a transcendent aspect of reality which lies behind and is (sometimes) regarded as the source of the universe we see; some version of "love thy neighbour as thyself" as a primary moral edict; and, a view of consciousness that goes beyond (and indeed may contradict) the conventional view of science. Two aspects of life, in particular, seem to touch common ground in all great religious traditions. The first is living selflessly. The second is the mystical experience in which somehow we glimpse an underlying unity and harmony behind the world of ordinary perception.

Science, as you say, is a very different pursuit. It offers greater certainty and opens itself to falsifiability through public experiment and observation. Mathematics offers greater certainty still and in some way seems to touch upon timeless, unassailable truths. But science, as we commonly understand it in the modern sense, is also very limited in that it excludes the inner world, the personal, the emotional, the subjective. Indeed it excludes the "what it is like to be-ness" of consciousness, which, of course, is the very essence of human existence.

Scientific belief is attractive because it can be tested in the open and is the same worldwide. Religious belief is more a matter of circumstance and personal narrative, yet there is enough common ground among the world's religions to hope that they, like science, embrace fundamental truths about reality.

### Fr. Gregory writes:-

I agree that much may be gained by identifying common elements between most if not all religions and your list is unexceptional and widely accepted. However, NO religion simply sets down these common factors as entirely sufficient and it is at least interesting that the commonality has taken root in a wider and deeper corpus of experience, practice and writings that each religion adheres to as part of its nurturing tradition.

I want to suggest, therefore, that consistency, so rightly valued in the natural sciences is of dubious value in the religious sphere, indeed it might be very limiting if self imposed; we might say a Creed of the Church of the B\*\*\*\*\*g Obvious wouldn't illumine anyone. I think it is precisely because we have such diverse circumstances and influences at the root of our social nature that our religious sensibilities MUST reflect that to be authentic.

Of course Feuerbach supposed that this was all that needed to be said about religion ... a diverse social construct. Like most atheists who can only conceive of religion as an alternative explanation for the world to that provided by science it never seemed to occur to him that the phenomenological aspects of religion remain necessary to any attempt to live by a transcendent way, (for every god there is a temple). Describing the subjective response to the divine does not by itself account for objective reference of that response, one way or the other.

If the social constructs of religion are necessarily polymorphic and only reducible across a partial range then even after allowing for deformations (suicide cults and the like) truth in religion, and ultimately God must be resolvable at deeper levels and over much longer timescales than that afforded by the rather narrow windows of historical human perceptions.

What all religions need, and what science needs in its analysis of religion as a social phenomenon, is a much stronger sense of the enormous range and capacity of the human spirit (in the image and likeness of God as the Judaeo-Christian tradition would say). Seen in this way the adventure and exploration of science is matched if not in kind yet still in degree by the religious quest of humankind.

#### David writes:-

I can only speak personally on this, but for me it is the inconsistency between religions which is most disconcerting and a barrier to confidence in a specific tradition. The various different faiths, Western and Eastern, have grown up in different places and times and so one can allow that their style and content will differ to some extent. But if a person is to take a free and broad-minded view of religion -- start afresh, as it were, without the blinkers and shackles of one's particular upbringing and the tradition handed down to us -- then, looking at what is on offer, some consistency would certainly be an aid to credibility. But in fundamental ways this is lacking. Most obviously, Christianity gives a central role to Jesus and basically teaches that lack of faith in him is an impediment to spiritual salvation. Judaism and Islam portray Jesus in a very different light. The major Eastern faiths make no mention of him and describe everything from a panoply of gods to no god at all. What is a free-thinking person to think when faced with such fundamental contradictions?

For my own part, as a scientific thinker, consistency and common ground among religions are very important. Beyond that I look to inner reflection -- meditation -- in an effort to touch some bedrock of truth. What I find is good reason, and experience, to believe that there is a transcendent aspect to the universe and a benign intelligence at work in it. That is simply what I think may be true.

I would additionally like to believe that we have personal souls and that Jesus was a divine being who can offer us salvation, because that would be comforting faced with the inevitability of death and the uncertainty of what, in anything, comes next. But I have nothing on which to base such a belief, other than scriptures, the historical accuracy of which seems questionable. And I'm extremely skeptical of belief that is comforting!

Lest I seem anti-religious, let me state that nothing is more important to me than trying to come to grips with the great questions of existence that elude science. But whereas science, and the scientific method, is something that doesn't require belief (or, at least, doesn't expect it without good evidence), conventional religions almost seem to demand a leap of faith as a condition of entry. Unfortunately, having made that leap one can never then be sure if the indoctrination process -- i.e., the acceptance of certain tenets of a given faith -- has not left us in a state of wishful thinking that comfortably satisfies our inner needs.

#### Fr. Gregory writes:-

There are several possible responses to the issue of the inconsistency of teaching between different religions but they broadly belong to two opposed approaches.

(1) One is true, the others are partially right perhaps but essentially false. This is so unacceptable to the contemporary mind (we could with more space and time examine the reasons for the predominance of that view) but as a simple proposition there is seemingly nothing irrational about it at all. However, it might be objected that the irrationality lies in a God who would leave people in dangerous ignorance through accidents of birth and culture. In that case we would have to conclude either that falsehood and its consequences don't really matter to God in which case the original proposition is fatally undermined or that it does matter to God but he can't or won't do anything about it in which case this god is not worthy of our worship. So, the view that all is falsehood outside the One True Religion is incompatible with both the sovereignty and love of God .... a fairly widespread view at least amongst all religions.

(2) Where there are commonalities between religious traditions but major and religiously important differences of historical claim and / or theological

interpretations or teachings ... for example the identity of the son that Abraham nearly sacrificed as between Christianity (Isaac) and Islam (Ishmael), then either the historical data can be assessed according to the usual standards and criteria of historiography or the theological interpretations can be rendered and maybe even to some extent resolved through dialogue.

As to the theological divergences I don't understand why we should be either surprised or alarmed by such inconsistencies. They are after all present in equal measure in science as well. So there are those who suppose dark matter and those who favour MOND gravitational reform; proponents of string theory and those who are developing loop quantum gravity and countless other examples from times present and times past. The only difference in the two situations (religion and science) concerns HOW the different approaches are to be resolved.

The discernment of truth is just as vital for believers who work within the framework of BOTH human exploration and revelation as in those who pursue empirical resolution of contested scientific theories. The touchstone of scientific truth is perhaps fidelity to what we observe in creation; the lodestone of religion's compass is that which makes sense of BOTH the human apprehension of the divine in all its global plurality AND the revelatory content which both sustains and describes that ... but this is still a sort of empiricism for all that.

So, I contend that it is just as unreasonable to expect religion to speak with one voice as it is to expect science to do the same. Looked at more positively, both disciplines work within pluralities that are necessary to the method and which may be resolved according to accepted procedures in each.

David writes:-

It's true that science, like the various religions, is full of conflicting claims and theories. However, in science there's good reason to believe that the competition between rival theories today will be resolved within a matter of a few years or decades, because this is the recurring experience of scientific progress. For example, in the 1960s, as you'll remember, one of the great rivalries in physical science was between the steady state theory of Hoyle, etc., and big bang cosmology. At the time I was a fan of steady state because I liked the idea of the universe staying pretty much the same and the continual, unobtrusive "creation" of matter. I supposed the issue would be resolved at some point during my lifetime, and so it has proved and I'm happy to have become a big bang convert. Now there are new questions as you point out, between different flavours of quantum gravity, the nature of dark matter and dark energy, and so on. But no one, I suspect, believes these will go unresolved indefinitely. Within a few tens of years at most we will have moved on to a fresh set of questions and theories having established new, firm knowledge on which to forge ahead.

This isn't the case with organised religions. The same discrepancies and inconsistencies exist now as they did centuries ago, and these are, at least in the way they are presented to the layperson, fundamental and crucial. To take an obvious example, in the vast majority of Christian churches one is left in no doubt that faith in Jesus as a saviour is a *sine qua non*. Whatever theologians may believe in private or professionally, what is usually conveyed to the punter, to put it crudely is, "believe in Christ as a divine being, or else." I've attended numerous services, Catholic, Methodist, Anglican, Lutheran, etc, where this message has been central, and never a word of criticism or debate. But in the absence of any convincing personal experience or epiphany, or of any corroborating historical data, what am I to do? I assume that many smart theologians of Judaism and Islam and the eastern faiths have read the New Testament. Why do they reach such different conclusions, and on such a critical issue as the nature of Jesus?

I understand that theology has to be watered down and simplified for the masses, just as science has to be simplified in order that the public can begin to make sense of it. But if people are told different things in science -- for example, about different theories of gravity or cosmology -- they can look forward to a time when these various interpretations are put to the test empirically. That isn't the case with religion. Go to a service in one religion and you will be told that this

particular doctrine is the one truth. Go to a service in a different faith and you will be taught an entirely different doctrine as if that were the only reality. That is why, personally, although I know science doesn't have all the answers, I prefer to pick and choose from the various spiritual traditions what works for me and what I can find credible.

#### Fr. Gregory writes:-

Religions, all religions, operate on different time scales than science. This reflects the differing nature of both the task and the context. Whereas the empiricism operating in science might reasonably lead one to expect a resolution of contested theories within a few decades; the process of discernment within and between religions is necessarily more extended because it has to factor in the experience of diverse peoples with diverse experiences and commitments. The discernment process and its outcome is no less valid however.

As to the sense that someone (perhaps such as yourself perhaps) can make of this who has no particular locus within any one tradition, then only one's own discernment, on whatever grounds, (extrinsically of course) can possibly prevail. That I recognise. Yet, for all this, the challenge presented by each religious tradition remains valid in respect of its own claims. In respect of Christianity this remains that posed by our Lord himself at Caesarea Philippi:-

"... but who do you say that I am?" [Mark 8:29]

#### David writes:-

The fact that religions take longer than science to decide if what they are talking about corresponds to existential reality, I think, ought to be conveyed more openly and frankly from the pulpit. Theologians may among themselves be aware that there is deep uncertainty about the nature of God, the connection between the physical universe and anything transcendent that lies beyond, the role and existence of Jesus (or other central figures), the nature of the human soul, the possibility of reincarnation, etc, etc. But none of this "soul-searching" is reflected in what the masses are told in the holy gathering places. I've never personally been to a service, of any denomination or faith, in which the speaker portrayed anything other than a firm, inviolable conviction in a particular worldview or sequence of events.

I know very well, having spoken to a number of theologians in private, that they don't believe with the same conviction that they teach. They have personal doubts. They change their views over time. But none of this is ever conveyed to those sitting in the pews. Why? Because if it were the pews would be empty (except possibly for doubters like me). People don't go to services for lectures on comparative religion or a questioning of the Word. (And if the basic tenets are questioned, as by the Bishop of Durham, the public is generally offended.) They go, in the vast majority of cases to have their faith topped up, to be reassured, to be comforted, and because they've been made to feel guilty since early childhood if they don't. Since we're talking about why people believe what they do, I have to say those reasons have never appealed to me. I don't want reassurance or comfort. I want the truth. And if the truth isn't known outside of simply accepting what is written in scriptures of uncertain provenance, then I'd rather pick and choose what seems to make most sense based on my limited experience.

Again I'm not arguing, as for example Richard Dawkins does, that religion is bunk and that we shouldn't seek out a spiritual dimension to the world. Quite the opposite. But I've never had a good enough reason to accept en bloc the teachings of a particular faith. Religion, for my taste, needs to become more like science, accepting and proclaiming openly that what it preaches are theories at best, and that it is not only likely but almost inevitable that much of what it professes today is quite simply wrong.

In answer to the question "... but who do you say that I am?" I would respond: How do you know that the question was ever asked?

#### Fr. Gregory writes:-

Christianity is not one lumpen mass David. There are, shall we say, "Christianities." The fundamentalist sort you describe may have been unfortunately the only kind you have encountered. All I can say is that in Orthodoxy we have a very important theological method which is correlative in some respects to falsification in the scientific method. So for every "is" statement or claim ... "God is good" for example (and empirical evidence might be adduced for that but that is not my point here) there is a corresponding apophatic statement ... "God is NOT good, NOT light, NOT (a) / being" etc. To paraphrase St. Cyril of Jerusalem ... "God is more surely known in what he is not than in what he is." There are some echoes of Zen here ... "If you meet the Buddha, kill him."

In this context (an inbuilt a-theism as an anti-objectifying of the divine) fundamentalism is impossible. So, an Orthodox Christian teacher will not repress doubt or mystery or questioning in his or her task of truth searching. Apophaticism will not allow such repression and anyone who starts pontificating from an Orthodox pulpit would be given short shrift indeed.

Whereas western Christianity has a certain obsession with definition and certainty we positively revel in agnosticism as the true language of faith. In the context of contesting naive atheist polemics (which I know you don't share) I have written about this elsewhere on [my blog](#). So, as the wise man says ... "Your mileage ~~may~~ *will* vary." In as much as there is "daft" science (cold fusion perhaps or the latest bon mot of Monsieur Dawkins) there is also "daft" religion. Avoiding both involves much the same discernment and critical realism.

Now as to the "who do you say that I am?" .... the significance of the question does NOT depend on who may or may not have first uttered it. Even if Christ never said it .... it is still a legitimate question. Did Archimedes really shout "Eureka!" ? Who cares? What matters was what he was going on about.

**David writes:-**

I'm not referring to literal interpretations of the Old Testament when I say that what is taught to the masses in many churches is, to me, not acceptable, but rather more to the completely unsubstantiated claims made about what Jesus said or did. I've no compelling reason to start from the assumption that there was such an entity as Christ, as a divine being, because I'm not prepared to believe things simply because that's the spiritual diet I grew up on, and also because I'm not one of those who've had a personal experience that persuades me in this direction.

On the other hand, I find it heartening that, at a level which unfortunately seems to be rarely shared with those who attend church, theological debate is more wide-ranging. It is good to know that learned practitioners of Orthodoxy are open to the perennial philosophy. Orthodoxy may not be original in that respect, or as verbally efficient as Lennon, but the willingness to question every statement that can be made about God or gods or the absence thereof is encouraging to hear. It's a pity that more of this kind of critical or challenging thinking is not projected from the pulpit.

More often than not, religions have to play catch up with science, making sure that they're not out of step with the latest worldviews from the physics of the very small or the very large. But in one respect, deep spiritual teachings, eastern and western, can claim that they have the edge on modern science. And this, I believe, has to do with the nature of consciousness.

When you quoted Christ as having said "who do you say I am?" there were two implicit assumptions, first that he said it and second that he existed (as someone other than a mortal charismatic figure). The second point is far more significant than the first. Even if he did say it, he wasn't the first to do. The nature of personal identity, and the nature of consciousness, are questions about the nature of reality as a whole, and, in my estimation, call for thinking outside the confines of Christianity.

**Fr. Gregory writes ...**

This seems a good place to wind it up David because it fairly reflects where we are both at and the issues involved.

