

ETERNAL QUESTIONS

a Journal of Metaphysics written by
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“to explore the eternal metaphysical questions of our kind”

JUL-AUG 2023: Issue #6

Birth of God, Part 4 “The Conclusion”

Some people play chess for fun. Some people do word puzzles for fun. Some people solve math problems for fun. And, some of us just watch TV. If you're more inclined to the last category than to the first three you will be happy to know I have cut the scientific intensity of this issue to the bone. Even so, I recognize that it can be difficult to focus on the birth of a god that happened billions of years ago, especially when we have to put food on the table and face the wolf watching the front door.

You are to be commended for making the effort to continue, and I promise that you will be rewarded in the end. But first I want to be clear that when we talk about the birth of God we are doing so interchangeably with the birth of the universe. To the Stoics the universe, the cosmos IS God, and using physics and physicists is just another way to describe what we know or believe we know. Unfortunately, as we are about to find out, physics at the beginning of the universe becomes speculative science and all certainty falls down.

So here we go. In the last issue we saw that the the great mathematician Paul Dirac discovered an equation in 1928 that resulted in the first realization that existence begins with matter and anti-matter destroying each other as soon as they leaped out of the vacuum of space. Then we saw that Heraclitus made the same conceptual leap either by observation or intuition or mystical experience in his description of the cosmos as a dynamic continuum 2500 years ago:

We must know that war is common to all, and strife is justice, and that all things come into being and pass away through strife. Homer was wrong in saying: "Would that strife might perish from among gods and men!" He did not see that he was praying for the destruction of the universe...

Heraclitus (frag. 62 and 43, Burnet Trans.)

But in the world of science, 1928 was a long time ago. Are Dirac and Heraclitus still valid today? Here's what the scientists at the European particle physics laboratory at CERN say about this. "Matter and antimatter particles are always produced as a pair and, if they come in contact, annihilate one another, leaving behind pure energy. During the first fractions of a second of the Big Bang, the hot and dense universe was buzzing with particle-antiparticle pairs popping in and out of existence."¹

Of course, the first question that comes to mind is how anything other than pure energy was created at all if these matter and anti-matter particles just annihilated each other? "...a tiny portion of matter – about one particle per billion – managed to survive. This is what we see today....Researchers have observed spontaneous transformations between particles and their antiparticles, occurring millions of times per second before they decay. Some unknown entity intervening in this process in the early universe could have caused these 'oscillating' particles to decay as matter more often than they decayed as antimatter."²

Whoa! Some *unknown entity intervening* in this process did this? What kind of entity? It's not likely that the scientists at CERN, Switzerland, are suggesting this unknown entity that intervened could be God, but what other name would we call such a thing? They would more likely suggest that it's just a matter of time before another Paul Dirac comes along and finds a new equation to describe this intervening entity in mathematical terms, but why couldn't God be described as a mathematical equation? Who knows? But, for now, we just speculate.

So, now, we have a Big Bang of tremendous energy in a hot and dense universe buzzing with particle-antiparticle pairs popping in and out of existence. And the only reason there is a universe at all is because of an "unknown entity intervening" to make matter decay less often than the antimatter, and the universe, or God as we Stoics would say, is born. Right?

Not so fast. It's not quite that obvious or simple. Does that intervening entity by any name or mathematical theory exist before or at the same time as the Big Bang? According to Paul Sutter, visiting scholar at Ohio State University's Center for Cosmology and AstroParticle Physics, says, "In the beginning, there was a

¹ <https://home.cern/science/physics/matter-antimatter-asymmetry-problem>

² Ibid.

question mark. All else followed. The end.”³

In other words, the Big Bang is *not* the creation of the universe at all. “[It] is a model of the history of the universe tracing the evolution of the cosmos to its very earliest moments. And that's it. The universe is different today from what it was in the beginning, and it will be different tomorrow. And it's not just on local scales; the whole shindig changes character one day to the next.”⁴

Before the Big Bang, the entire universe “...was crushed into a trillion-Kelvin ball about the size of a peach...Earlier than 10^{-36} seconds, we simply don't understand the nature of the universe. The Big Bang theory is fantastic at describing everything *after* that, but before it, we're a bit lost. Get this: At small enough scales, we don't even know if the word 'before' even makes sense!”⁵

And now, at the risk of whiplash, we are going to spin the dial of our time machine back 2500 years to the age of Heraclitus one final time. But instead of more Heraclitus it may be useful to have a very quick review of the Greek beliefs about creation he probably knew as a child. To save time, yours and mine, I'm going to simply quote a couple of sources of ancient Greek creation myths, followed by a brief comment.

“According to Greek Creation myth, in the beginning, there was nothing but Chaos – a formless emptiness or void. It is believed that Chaos was something of a careless god who lived in a dark, chaotic void with no order whatsoever. When Chaos was in-charge, there was no solid land as there is today. There was no sun, no moon, no flowing rivers, no freshwater, no seas, no mountains, and there was no pure air to breathe.”⁶

“Before earth, and sea, and heaven were created, all things wore one aspect, to which we give the name of Chaos—a confused and shapeless mass, nothing but dead weight, in which, however, slumbered the seeds of things.... [However], There is another cosmogony, or account of the creation, according to which Earth, Erebus [Night], and Love were the first beings. Love (Eros) issued from the egg of Night, which floated on Chaos.”⁷

Chaos was the name of a “formless emptiness or void,” and love issued from the egg of night. The egg of Erebus gave birth to Eros. Love came out of the darkness of night. And, if you have a Romantic bone in your body you must agree that this

³ <https://www.space.com/31192-what-triggered-the-big-bang.html>

⁴ *ibid*

⁵ *ibid*

⁶ Internet: <https://www.theoi.com/articles/what-is-the-greek-creation-myth/>

⁷ Bulfinch, Thomas, *Myths of Greece and Rome* (Penguin Books, 1979, pp. 38, 16)

is truly breathtaking in poetic symbolism. If we take this birthing sequence one step further we can wonder with the ancients if the cosmos was created by Eros, love.

No One Knows

In our last issue it was promised that this issue would be about God and Heraclitus. However, events and information intervened in such a way as to alter the focus of what follows. Apologies to any who may have been looking forward to more Heraclitus, but I think you will be happy with the end of this section on the birth of God as it is. And now, we have a brief review bringing us to a conclusion.

In Judaism, from the Old Testament of the Holy Bible we quoted Genesis, chapter 1, verses 1–3: “In the beginning of creation, when God made heaven and earth, the earth was without form and void, with darkness over the face of the abyss, and a mighty wind that swept over the surface of the waters. God said, ‘Let there be light’, and there was light...” We see the Bible uses a similar terminology as Greek mythology to describe conditions before the birth of the universe, a formless emptiness or void, but there is no explanation for the birth of the god that made heaven and earth

Thus, the Old Testament begins creation with a logical fallacy, the Infinite Regress. There is no explanation for where God came from. There is no explanation for who or what made the biblical god, or that god, or that god—all the way back to infinity.

From the Christians we saw that the person writing as John borrowed the idea of the Word from Heraclitus when he wrote in the New Testament book of John, chapter 1, verses 1-3: “When all things began, the Word already was. The Word dwelt with God, and what God was the Word was. The Word, then, was with God at the beginning, and through him all things came to be; no single thing was created without him.” Again, the Infinite Regress. From whence did this god who used the Word come?

Here is the Hindu creation story we learned: Brahma, the god of creation, created the universe out of himself. Before he made the universe, Brahma was all alone and self-content. But then for some reason he got lonely and wanted companionship. First, he began his project by making water. The water became an ocean. Then, he dropped a seed into his ocean, and the seed became a golden egg from which he emerged and the remaining golden eggshell pieces expanded and became the universe. Yes. Infinite Regress again. From whence did Brahma come?

Gautama Buddha didn't fall into the logical fallacy trap because he didn't create a god that was born at all. All he said about the birth of the universe is that it was

an "inexpressible." The first of his four inexpressibles (the Quadrilemma) simply states that we don't know "Whether the world is eternal or not, or both, or neither." How refreshing in its honesty.

But Heraclitus said he knew. He didn't fall into the logical fallacy of Infinite Regress with the birth of a god. He said, "This cosmos, which is the same for all, no one of gods or men has made; but it was ever, is now, and ever shall be an ever-living fire, with measures kindling and measures going out." So, basically he is saying that there is no before or after. It was not created by men or gods because it was a fire, the Logos fire.

The particle physicists at CERN have determined that the only reason there is a universe of matter at all is because some unknown intervening entity made matter decay less often than the antimatter. And, the AstroParticle Physicist Paul Sutter said, "In the beginning, there was a question mark. All else followed." The Big Bang is a historical model of the universe, not the birth of the universe. Before the Big Bang, "we simply don't understand the nature of the universe...we don't even know if the word 'before' even makes sense!"

According to contemporary physics, when the last star cools and fades away space expands outward into a cold black emptiness.⁸ Existence, or rather nonexistence, will be as it was before the beginning. This is called the "grand unified epoch," and physicists admit this is purely speculative physics because they are incapable of producing enough energy in their experiments to understand what was going on at this time.⁹

Quantum field theory proposes that even in empty spacetime there would be energy fluctuations that would cause particles to pop in and out. But this speculation has come under harsh criticism, so we go back even further to the "Planck epoch" where all our theories break down and spacetime itself is subject to quantum fluctuations. When that happens we lose all understanding of cause and effect, and at this point we enter the realm of metaphysics and have to ask the eternal question: Why is there something rather than nothing?¹⁰

How can we know the birth of God if we aren't even certain that there is a "before" before creation? How can we choose our belief when all around us disagree? If there is simply no way we can choose which story is true, then we must conclude with the Stoics that when despite our best efforts we have no certain answer we must suspend judgment. Listen to Epictetus:

⁸ <https://www.bbc.com/future/article/20220105-what-existed-before-the-big-bang> by Alastair Wilson, professor of philosophy at the University of Birmingham

⁹ ibid

¹⁰ ibid

"[1]For what reason do we give our assent to something? Because it appears to be the case. [2] If something appears not to be the case, it is impossible for us to give assent. And why so? Because that is the nature of the mind, that it should agree to things that are true, not accept things that are false, and suspend judgment with regard to things that are uncertain."¹¹

For those who are willing to enter the realm of metaphysics, when physics loses its way and "all our theories break down," there is a direct way to explore cosmological questions. There is a direct way to push against suspending judgment with regard to things that are uncertain. But this practice is difficult and requires considerable background information that must wait until later. Later. For now, and for next time we will begin a new section that examines the attributes of God. None of our institutions from religion to science know how God was born, but we can go beyond our ignorance to discover old and new ways to imagine the divine.

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OUTSIDE

"A Fleeting Friendship"

It was forty-four summers ago, the summer before my last year of graduate school when I completed my grand tour of Mexican art museums. My greatest interest was pre-Columbian terracotta sculptures, and the deep but intimate collection of Oaxaca's most famous artist, Rufino Tamayo, completed my summer's education. So, now it was time to find a beach on the Pacific Ocean and meditate on all that I had seen and learned.

Puerto Angel was the goal—a tiny fishing village barely on the map. The most direct route from Oaxaca to Puerto Angel was by decrepit bus, a 6-hour motion sickness ride through the intensely green jungle mountains where the only people I saw were the occasional indigenous Mixtec or Zapotec man of about 5 feet tall—always alone, walking slowly on the side of the road, always carrying a 3-foot machete with the point dragging behind him in the dirt.

Puerto Angel in 1979 was a village of about 120 people where pigs, goats, chickens and burros roamed the dirt streets freely and made up the greater population. It was a very hot summer day when I arrived, and after I found a small room and a warm Coca Cola I went to the beach with only a towel and a

¹¹ Epictetus, *Discourses, Fragments, Handbook* (Oxford, 2014, 1.28)

pair of swim trunks to soak up the sun. I was the only one there. After a quick dip in the surf I lay down on the clean sand and closed my eyes.

Someone was walking up to me. I kept my eyes closed and expected them to go past. Instead, they stopped beside me, uncomfortably close for a stranger, then I heard them laying down. I opened my eyes, just a peek, to look at my new compadre. She was a very large and very pink pig, a sow. I rose up on my elbows with eyes wide open. She ignored me with a grunt, and I lay back down and returned to sunbathing. Just the two of us. After 10 or 15 minutes I'd had enough sun and went into the water to cool off. When I got back to my beach towel I looked everywhere, but she had gone.

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For the Readers

The Eternal Questions Journal of Metaphysics is published online monthly by Brother Erikos, a Forest Monk of the Black Eagle Stoic Monastery

<https://stoicmonastery.com>

If you have a question or comment for Brother Erikos go to the EQ website at <https://theEternalQuestions.org>. Please state your name, email address, the issue number, and the nature of your question or comment in 200 words or less.

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