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# Y-ORIGINS

ARTICLE 3:

# OPTIONS FOR ORIGINS

THE CHOICES IN ACCOUNTING FOR OUR UNIVERSE BOIL DOWN TO THREE: CHANCE, MULTIPLE UNIVERSES, OR DESIGN

# Options for Origins

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Larry Chapman

# OPTIONS FOR ORIGINS

**The choices in accounting for our universe boil down to three: chance, multiple universes, or design**


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Scientists are looking at the extreme rarity of life in our universe and asking, "why are we so lucky?" At some point you've got to step back from the facts and ask the question "So what does all this fine-tuning add up to?"

Example:

A university student who's just trying to get a passing grade might be satisfied with loading up his short-term memory with the data he's received. But a student who is actually planning to use this information in a career, or for personal enrichment, has to spend some time thinking about the subject's actual meaning.

Same thing with the question of how quasars, Pluto, and you got here.

The evidences for the fine-tuning of the universe to permit life to exist on one medium-sized planet, third from the left, are mounting. Many scientists are speaking in theological terms about what they see as clear evidence for design.

If you were to survey the writings of leading scientists such as Hawking, Penrose, Davies, and Greene, you would find that there are three options being offered for our origins.

- The fine-tuning of the universe is merely a coincidence.
- There are other universes, improving the odds of life.
- The universe has been designed.

## LUCKY YOU

Some materialists attribute the fine-tuning of the universe to chance. In *Alpha & Omega*, Charles Seife summarizes how some view the fine-tuning: "It seems like a tremendous coincidence that the universe is suitable for life."[1]

Cosmologists Bernard Carr and Sir Martin Rees state in the journal *Nature*, "Nature does exhibit remarkable coincidences and these do warrant some explanation."[2] In a later article Carr comments, "One would have to conclude either that the features of the universe invoked in support of the Anthropic Principle are only coincidences or that the universe was indeed tailor-made for life. I will leave it to the theologians to ascertain the identity of the tailor."[3]

In other words, *as a scientist, I don't get into religion, so I assume it was all a lucky break.* Scientists who subscribe to a materialistic world view simply can't bring themselves to accept the intervention of an intelligent designer who orchestrated the creation of the universe. Therefore, faced with all the evidence for fine-tuning, they default to the position that it was all just a coincidence.

There is, however, a defense often raised by those who take the viewpoint that life, and the fine-tuning of the universe, are just amazing coincidences. It goes like this: Whatever shape the universe took, one could look at the sequence of events and say that it was just as unlikely that the universe should have developed in that way.

In other words, every state of affairs, from a certain viewpoint, has astronomical odds of its eventuating just the way it did. So why should we really be amazed that we won life's cosmic lottery? Somebody had to.

Let's consider how I lived out my day today as an example of this line of thinking:

What are the odds that I would have gone to the post office, as opposed to the grocery store or Blockbuster, and purchased 18 stamps instead of 20 or 30?

"THE ODDS AGAINST A UNIVERSE LIKE OURS EMERGING OUT OF SOMETHING LIKE A BIG BANG ARE ENORMOUS... I THINK THERE ARE RELIGIOUS IMPLICATIONS WHENEVER YOU START TO DISCUSS THE ORGINS OF THE UNIVERSE."

STEPHEN HAWKING

What are the odds I would have received a phone call, rather than an e-mail, from my friend Jeff?

What are the odds I would have eaten—today of all days—hot dogs for dinner, when I could have eaten so many other dishes that didn't contain beef hearts?

By the time you get to the end of the day, the odds of my living out my day in exactly this way, as opposed to others, would be rather large. I could get to the end of the day and scratch my head in amazement at the chain of events that have led me to my current sprawled position on my sofa staring at my computer screen—*Gee, what are the odds*?

This is a neat magic trick done with odds, and the inventor of it has a bright career ahead of him as a pollster in politics. Calculating the odds for a particular sequence of ordinary events like my day's circumstances *after* they occur is no different than predicting the winner of a race after it is over. But looking back on a finely-tuned universe and assigning probabilities of it having occurred by chance is totally different. The two scenarios are different as apples and oranges.

In order to calculate the odds against our being here, over a hundred parameters must be balanced on a razor's edge. If just one of them was off by just a slight degree, you wouldn't be reading this.

## ADD-ON UNIVERSES

Most scientists don't believe such odds could be a coincidence. So how do materialists explain odds that seem miraculous? If they don't want to acknowledge an intentionally designed universe, they must come up with another scenario that would explain it all, or their materialistic premise is toast. So if you are trying to avoid the implication of a creator, you would want to construct a theory that would decrease the odds of the universe being miraculous.

If you want to avoid the implication of a creator, your tack would be fairly obvious: decrease the odds.

One way you can decrease the odds is to add in the ingredient of several billion years. One might imagine that the universe could plausibly bake up just about anything in that much time, but even the 13.7 billion years that cosmologists estimate for the age of the universe is way too short for life to have reasonably arisen by natural means.

Therefore, some scientists, such as Stephen Hawking and his Cambridge colleague Sir Martin Rees, have taken a different approach. They have speculated that our universe might be merely one of many universes, thus dramatically improving the odds for life in ours. Let's listen to what Rees himself says concerning his motive behind the multi-universe theory:

> If one does not believe in providential design, but still thinks the fine-tuning needs some explanation, there is another perspective—a highly speculative one.... It is the one I prefer, however, even though in our present state of knowledge any such preference can be no more than a hunch....There may be many "universes" of which ours is just one.[4]

Rees and Hawking have persuaded many in the scientific community that other universes are possible, although highly speculative. According to Hawking, the multi-universe theory (also called the multiverse theory) would rule out the need for a designer.[5]

But is the search for other universes driven by science, speculation or a materialistic bias? Seife, a mathematician and journalist for *Science* magazine, explains what he believes to be the motivation behind the multi-universe theory: "Scientists tend to be uncomfortable with coincidences, and the many worlds interpretation gives a way out."[6]

Rees, a materialist, likes the multi-universe theory because it provides an alternative to providential design. The undeniable reality of fine-tuning has energized the multi-universe theory, since it gives hope to the materialist that life could exist without a designer. But many scientists are raising their eyebrows at the speculative nature of the multi-universe theory, considering its premise to be flawed.

## IMAGINARY TIME, IMAGINARY UNIVERSES?

Hawking bases his theory on a mathematical concept called imaginary time, which is merely a mathematical concept and doesn't represent reality. By using imaginary time,

Hawking is able to make it appear that the universe never had a beginning. Once again, scientists uncomfortable with a beginning are seeking ways to avoid it. Hawking explains the reason for their avoidance: "So long as the universe had a beginning, we could suppose it had a creator."[7]

Albert Einstein used a different mathematical concept to remove the appearance of a beginning. Later, Einstein admitted it to be his "biggest blunder." According to theoretical physicist Julian Barbour, Hawking's use of imaginary time may also be a blunder. It has been "widely criticized" and has "technical problems."[8]

Most scientists are reluctant to endorse the concept of multiple universes because it isn't based upon any evidence, and can only be theorized in imaginary time. Even its greatest advocates, Hawking and Rees, admit multiple universes can never be empirically verified. In *The Elegant Universe*, Brian Greene calls the multi-universe theory "a huge if."[9]

Physicist Paul Davies explains why materialists are so fervent in their attempts to validate the multi-universe theory.

> Whether it is God, or man, who tosses the dice, turns out to depend on whether multiple universes really exist or not. …
> If instead, the other universes are … ghost worlds, we must regard our existence as a miracle of such improbability that it is scarcely credible.[10]

Regarding the multi-universe theory, Davies remarks, "Such a belief must rest on faith rather than observation."[11]

Since the multi-universe theory is based upon faith, most scientists regard it as merely a hypothesis rather than a true scientific theory. Yet it still is being argued as a valid theory by Hawking, Rees, and others who seek a materialistic explanation for our origin. Investigative reporter Gregg Easterbrook, an investigative reporter for the *Atlantic Monthly* concludes his research on the multi-universe theory by stating: "The multiverse idea rests on assumptions that would be laughed out of town if they came

from a religious text."[12]

Hawking and Rees should not be faulted for searching for a workable explanation; that's what scientists do. But this issue raises a red flag, not on Hawking or Rees, but (perhaps) on a fundamental flaw of the scientific method. If it just happened to be true that God really was the cause of something, could science ever discover this truth? Wouldn't science have to offer a materialistic explanation, no matter how unlikely, because the alternative is not an allowable option for them? This is, indeed, a problem, and it's the issue that scientists who do see intelligent design in the cosmos are wrestling with.

## HANDMADE UNIVERSE

In *Bringing Down the House*, author Ben Mezrich tells the story of six MIT students who travel to Las Vegas and make millions. they were able to swing the odds in their favor. After a series of winning streaks, they found themselves followed by house detectives who asked them to leave and never return.

How were they discovered? In one sense, they weren't. No one actually ever caught them cheating, but the MIT students did do something that was a dead giveaway: they won. Repeatedly they beat the odds, and when the dealers and house detectives in Las Vegas observe someone repeatedly beating the odds, they suspect intelligent design: someone is not playing by the laws of random chance but by a carefully reasoned system, like card counting.

The fine-tuning in the universe is astounding and unimaginably improbable. It could be all coincidence or chance, or maybe there are multiple universes, raising the odds and probability of life, but a good detective would be wise to consider the distinct possibility that intelligent design lies behind the observable phenomena.


applying their skills in logic and mathematics to counting cards and other trickery,

## TO HUME IT MAY CONCERN ...

It is primarily due to the arguments of 18th-century English philosopher David Hume that science has largely dismissed any argument for design in the universe.

As a materialist, Hume argued that the universe was a result of chance rather than of intentional design. He believed miracles were impossible because they couldn't be subjected to scientific verification.

Hume's arguments refuting intelligent design have been extremely effective in persuading scientists that all events in the world are from chance alone. Hume's basic logic is as follows:

1. The world is ordered.
2. This is due to either chance or design.
3. It is very possible that the world came about by chance.

Hume had several other arguments against design, but according to mathematician William Dembski, he used faulty logic. "Hume incorrectly analyzed the logic of the design argument, for the design argument is, properly speaking, neither an argument from analogy nor an argument from induction but an inference to the best explanation."[13]

Although Hume's influence on science has been pervasive, he lived in a day when astronomy was in its infancy and the prevalent theory favored an eternal universe. He wasn't aware of the big bang theory that

points to a beginner, or the design implications of fine-tuning.

The recently discovered fine-tuning of the cosmos has compelled even the most ardent materialists to consider the possibility of intelligent design. What is the best explanation for the fine-tuning? When Hawking first realized that the universe couldn't be a mere coincidence, he related to a reporter, "The odds against a universe like ours emerging out of something like a big bang, are enormous. … I think clearly there are religious implications whenever you start to discuss the origins of the universe."[14]

Davies concurs. "It seems as though somebody has fine-tuned nature's numbers to make the Universe. … The impression of design is overwhelming."[15]

Some scientists, such as Hawking, are uncomfortable with the obvious religious implications. But cosmologist Edward Harrison speaks for others who respond to the evidence for the fine-tuning by clearly stating the obvious:

> Here is the cosmological proof of the existence of God. … The fine-tuning of the universe provides prima facie evidence of deistic design.
>
> Take your choice: blind chance that requires multitudes of universes or design that requires only one. …
>
> Many scientists, when they admit their views, incline toward the … design argument.[16]

Few scientists believe the precise fine-tuning is merely a coincidence. While some hold to the multi-universe theory, most scientists believe such a speculative theory is beyond the boundaries of science. Many credible scientists have been persuaded by the evidence that our universe is not here by accident but rather is the intentional plan of a superintelligent being.

Dr. Robert Jastrow is a theoretical physicist who joined NASA when it was formed in 1958. Jastrow helped establish the scientific goals for the exploration of the moon during the Apollo lunar landings. He set up and directed NASA's Goddard Institute for Space Studies, which conducts research in astronomy and planetary science. Jastrow wrote these thoughts that summarize the view of many scientists.

> For the scientist who has lived by his faith in the power of reason, the story ends like a bad dream.
>
> He has scaled the mountains of ignorance; he is about to conquer the highest peak; as he pulls himself over the final rock, he is greeted by a band of theologians who have been sitting there for centuries.[17]

"THE MULTIVERSE IDEA RESTS ON ASSUMPTIONS THAT WOULD BE LAUGHED OUT OF TOWN IF THEY CAME FROM A RELIGIOUS TEXT."
ATLANTIC MONTHLY

## THE ANTHROPIC PRINCIPLE

Astrophysicist Stephen Hawking cites the term "anthropic principle" when attempting to explain why the universe is so exquisitely fine-tuned for life. Hawking writes, "it seems clear that there are relatively few ranges of values for the number that would allow the development of any form of intelligent life. …One can take this either as evidence of a divine purpose in Creation and the choice of the laws of science or as support for the strong anthropic principle."[18]Hawking has advocated the strong anthropic principle solution of many universes in order to avoid the conclusion of a designer.

The anthropic principle is a fancy term for stating the obvious about the fine-tuning of the universe, i.e., if all the conditions in the universe weren't perfect for human life to exist, we wouldn't be here to ask the question of why it is so finely-tuned for life. What sounds like circular reasoning has led to a revival of the argument from design, which had lost its intellectual respectability among many scientists after Darwin.

One aspect of the anthropic principle is that it asserts that our place in the universe is special. This contradicts the general trend of science since Copernicus; that there is nothing special about Earth. (the Copernican principle) Many materialists who dislike the implications, squirm when discussing the anthropic principle, and it remains a controversial topic. But thus far, no scientist has been able to refute the fine-tuning evidence that supports its premise, and many believe it is simply a commonsensical way of saying life on Earth is special.

## NOTES


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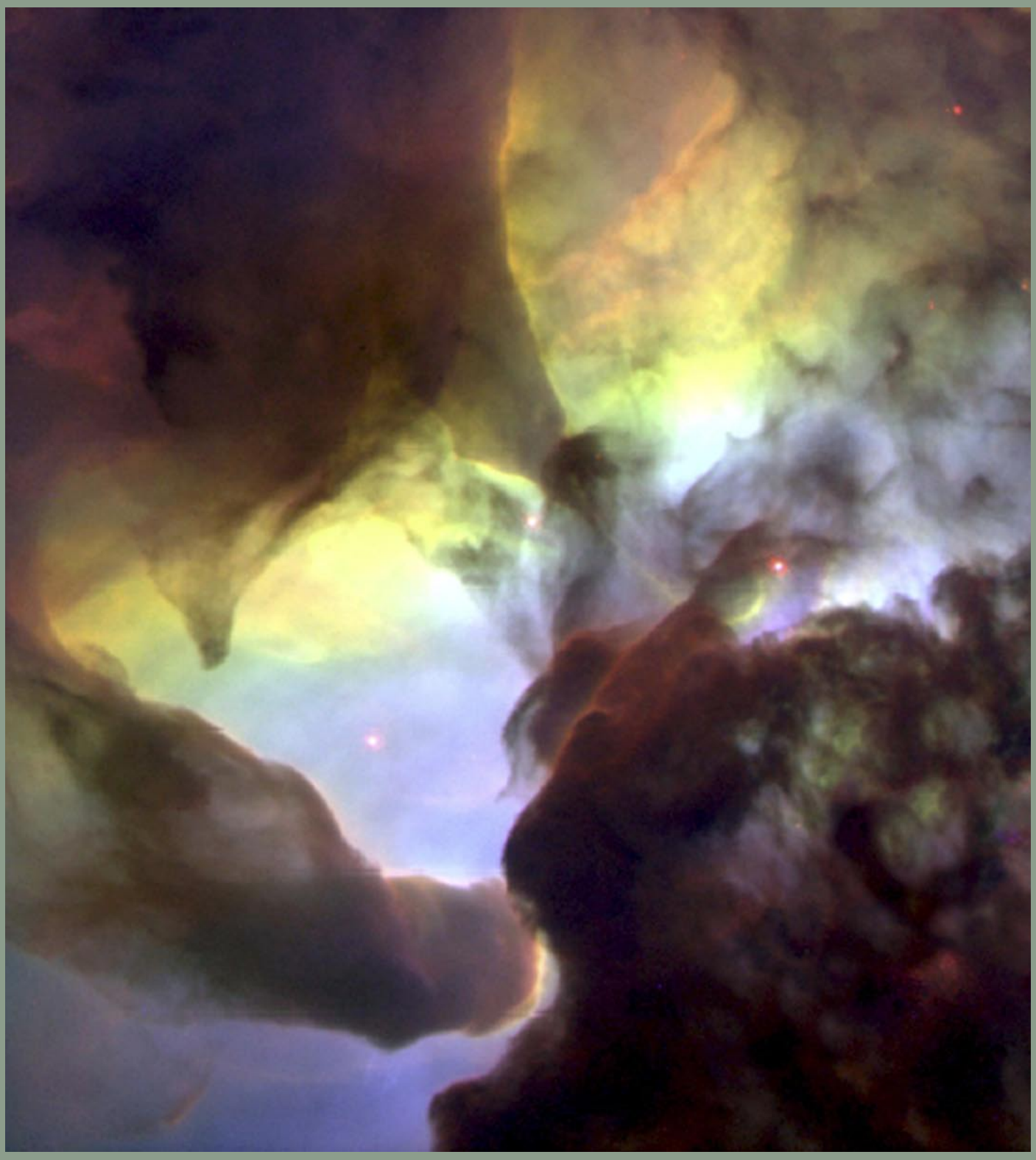
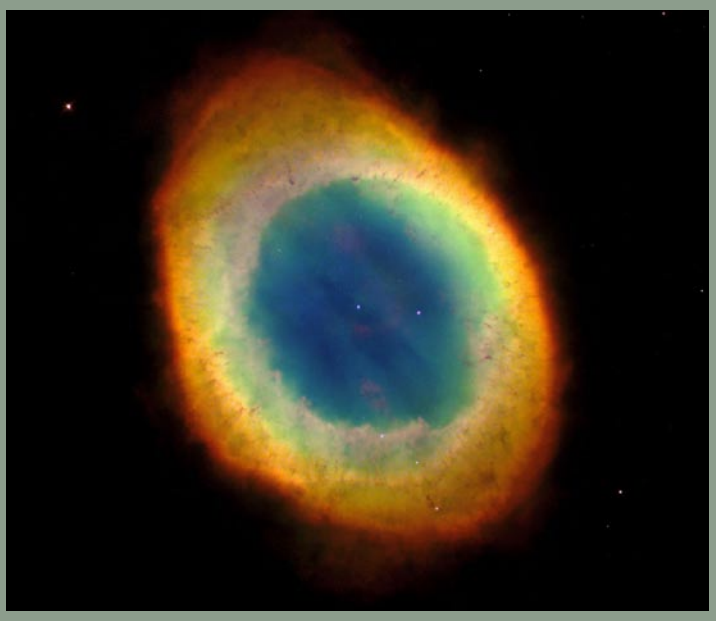
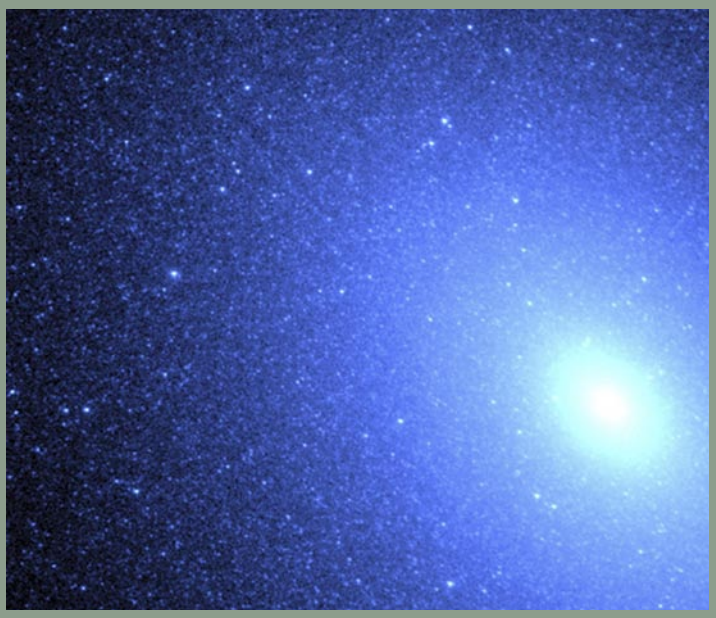


# THE LAGOON NEBULA



THE RING NEBULA (M57) KNOWN AS “THE EYE OF GOD”

STARS IN THE TARANTULA NEBULA



ULTRAVIOLET LIGHT SOURCE FROM AN ANCIENT GALAXY