

Divine Design

April 20, 2008

ON A MINOR PLANET



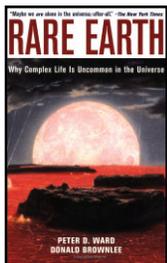
Perhaps the most respected theoretical physicist of our time is Stephen Hawking. A couple of decades ago, in a BBC TV show called “Master of the Universe”, he had this to say about the possibility of God creating our universe:

“We are such insignificant creatures on a minor planet of a very average star in the outer suburbs of one of a hundred thousand million galaxies. So it is difficult to believe in a God that would care about us or even notice our existence.” - *How We Believe, 2nd Edition, page 102*

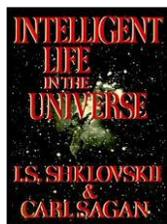
But, just how minor is our planet? How average is our star? In the past two decades there have been so many discoveries regarding the complexities of our planet, solar system, galaxy, and universe that the very language of science has changed. Words like “average” and “typical” and “common” are quickly and universally being replaced with terms like, “finely tuned”.

In a November, 2002 article titled, “Why is there life?” the *secular* science magazine, Discover, marveled:

“The universe is unlikely. Very unlikely. Deeply, shockingly unlikely.” - *Why is there life?, Discover, November, 2002*

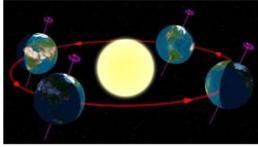


In 2004, two *secular* scientists, Peter Ward (*Prof. of Geological Sciences*) and NASA team member Donald Brownlee (*Prof. of Astronomy*) wrote a book, and dedicated it to Carl Sagan. It was praised by “The New York Times”, “Associated Press”, “CNN.com”, “American Scientist”, “Astronomy”, “Science”, “Physics Today”, even “The Seattle Times”! It was Editor’s Choice for “Scientific American”. What was the book? Rare Earth, *Why Complex Life Is Uncommon in the Universe*



In 1966, famed astronomer and astrochemist Carl Sagan coauthored a book wherein they determined it takes a specific type of star, with a planet located just the right distance, to provide the *minimal* conditions for life. Working with just these *two simple parameters*, they estimated that only 0.001% of all stars could have a planet capable of supporting advanced life.¹ They estimated a million+ possible life sites for our galaxy.

¹ *Intelligent Life in the Universe, Carl Sagan, 1966, pages 343-350; 413*



3. Earth has a tilt of 23.5 degrees. This is what causes our seasonal changes, and it's what regulates Earth's climate and temperature.



4. For a small planet, we have a *huge* moon (a quarter the size of Earth), but we need its powerful gravitational pull to stabilize our tilt, and to circulate Earth's water. If the Moon was smaller or further away, or if Jupiter was larger or closer, or if Earth was closer to, or farther from the sun, our spin axis would vary by as much as 90 degrees. Again with the frying and freezing!



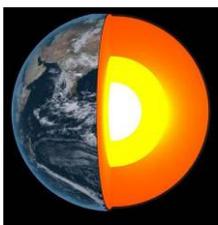
5. Jupiter has 300 times the mass of Earth; which stabilizes Earth in a *circular* orbit around the sun. If it were an elliptical orbit we would ... anyone ... anyone ... freeze and fry. Jupiter is so massive, that it also acts as a shield to deflect and catch most of the comets before they can strike the earth.



6. If Earth were smaller it couldn't retain an atmosphere. But, if it was bigger, the increased gravity would retain too much ammonia and methane. Increased gravity would collapse mountains before they can form; we'd be *smooth* with a universal flood depth of 1.2 miles.

We have a thin crust. If it was any thinner volcanic activity and tectonic activity would be too great for complex life. If it was thicker, there'd be *no* plate tectonic recycling, which is critical for regulating the Earth's interior temperature, recycling carbon, and mixing essential chemical elements. Plate tectonics and continental drift also create the high and dry areas. But, you also need oceans of water to lubricate and facilitate the movement of the plates.

7. Liquid Center:



Our core is made of liquid iron, which acts as a dynamo to generate a magnetic field around the planet, shielding us from cosmic radiation, and keeping solar wind particles from stripping away the upper atmosphere. If the magnetic field was stronger, electromagnetic storms would be too severe. If it was weaker, the ozone shield would be inadequately protected from stellar and solar radiation.

If we spun slower, we wouldn't have a liquid core or magnetic field; too fast, and the dust from daily volcanic eruptions would blot out the sun.



8. Earth's Atmosphere: Our atmosphere is 78% Nitrogen and 21% oxygen; a necessary combination for supporting liquid water and complex life. It also protects us from the sun's radiation.

This is just a *handful* of parameters. There are over 100 more!

I'll recommend three books:

1. The Case for a Creator, by Lee Strobel.
2. The Creator and the Cosmos, by Hugh Ross.
3. The Privileged Planet, by Gonzalez and Richards.

The heavens declare the glory of God; the skies proclaim the work of his hands.
Day after day they pour forth speech; night after night they display knowledge. -
Psalms 19:1-2 NIV

In "The Privileged Planet", Gonzalez and Richards argue that the same finely-tuned circumstances that allow us to exist also provide us with the best setting for scientific discovery.



For instance, the requirements for producing a total eclipse of the sun are a luminous body, an eclipsing body, and an observation platform, in a *straight* line. The apparent size of the moon has to be the same as the apparent size of the sun. Our sun is four hundred times *bigger* than the moon, but it's four hundred times *further away*.

If our moon were slightly larger, it would partially block our view of the sun's chromosphere. A smaller moon would allow too much light from the sun – destroying our view. Total eclipses have permitted astronomers to understand how stars work, and how the spectra of distant stars are produced. A total eclipse confirmed Einstein's theory of relativity by verifying that the sun's gravity bent light from distant stars traveling toward the earth at the angle Einstein predicted.

It's like He *wants* us to discover and understand that we're not on a minor planet of an average star in a random galaxy ... because He wants us to be fully aware that He cares.

To explain our finely-tuned planet, many secular physicists have embraced a "multiple universe" theory: that there are an infinite number of parallel universes in other dimensions. So, the odds of one universe getting it right are small again. But, this metaphysical response takes more faith than I have! And, if it's true ... Who created all of *those* universes? It reminds me of Romans, chapter one:

The wrath of God is being revealed from heaven against all the godlessness and wickedness of men who **suppress the truth** by their wickedness [*The deepest expression of wickedness is human pride which refuses to submit itself to the existence of God and His truth*], since what may be known about God is plain to them, because God has made it plain to them. For since the creation of the world God's invisible qualities – his eternal power and divine nature – have been clearly seen, being understood from what has been made, so that men are without excuse. - *Romans 1:18-20 NIV*