

# **Teleology – Design in the Universe An Argument for God's Existence**

**Oikos Apologetic Series**

**By Owen Daniels**

# A Well Designed Universe - Ancient Thought

Around 387 BC the Greek philosopher Plato purchased a house in a park known as Academeca just outside Athens, and there he opened a school that flourished for an astonishing nine hundred years, until it was shut down by the Byzantine emperor in AD 529. Plato's goal was the search for truth by means of rational inquiry.

According to Plato, there are two things that lead men to believe in God: the argument from the existence of the soul, and the argument “from the order of the motion of the stars, and of all things under the dominion of the Mind which ordered the universe” (Laws 12.966e).

Plato employed these arguments to refute atheism and concluded that there must be a “best soul ” who is the “Maker and Father of all,” the “King,” who ordered the primordial chaos into the rational cosmos that we observe today ( Laws 10.893b–899c).

Craig, William Lane (2010-03-01). On Guard: Defending Your Faith with Reason and Precision (Kindle Locations 1664-1668). David C. Cook. Kindle Edition.

# A Well Designed Universe

- The observation that the universe was orderly and well-designed gave birth to the "scientific method". We can repeat our observations/experiments and anticipate that if something changes, it changed for a reason (i.e. the variables have changed) rather than just changing randomly as a result of everything being chaotic.

**HYPOTHESIS -> THEORY -> LAW**

**This would be forgotten or suppressed as Science embraced Darwinism...**

# Modern Thoughts Runs into Fine Tuning

Scientists used to think that whatever the very early universe might have been like, given sufficient time and some luck, intelligent life forms like ourselves would eventually evolve somewhere. As a result of discoveries over the last forty years or so, we now know that that assumption was wrong. In fact, quite the opposite is true.

Craig, William Lane (2010-03-01). *On Guard: Defending Your Faith with Reason and Precision* (Kindle Locations 1695-1697). David C. Cook. Kindle Edition.

“Fine Tuning” means that there is a very narrow band of values that the forces in our universe can have in order to sustain life. If these forces and variables varied by even a small margin, life would not be possible anywhere in the universe. Not only life would be impossible, but matter itself would be imperiled.

# Fine Tuning

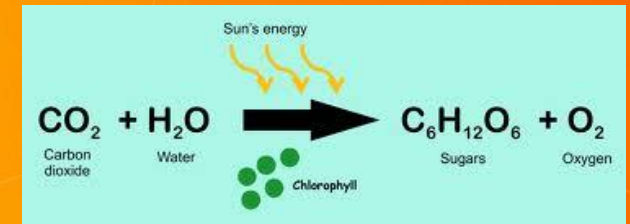
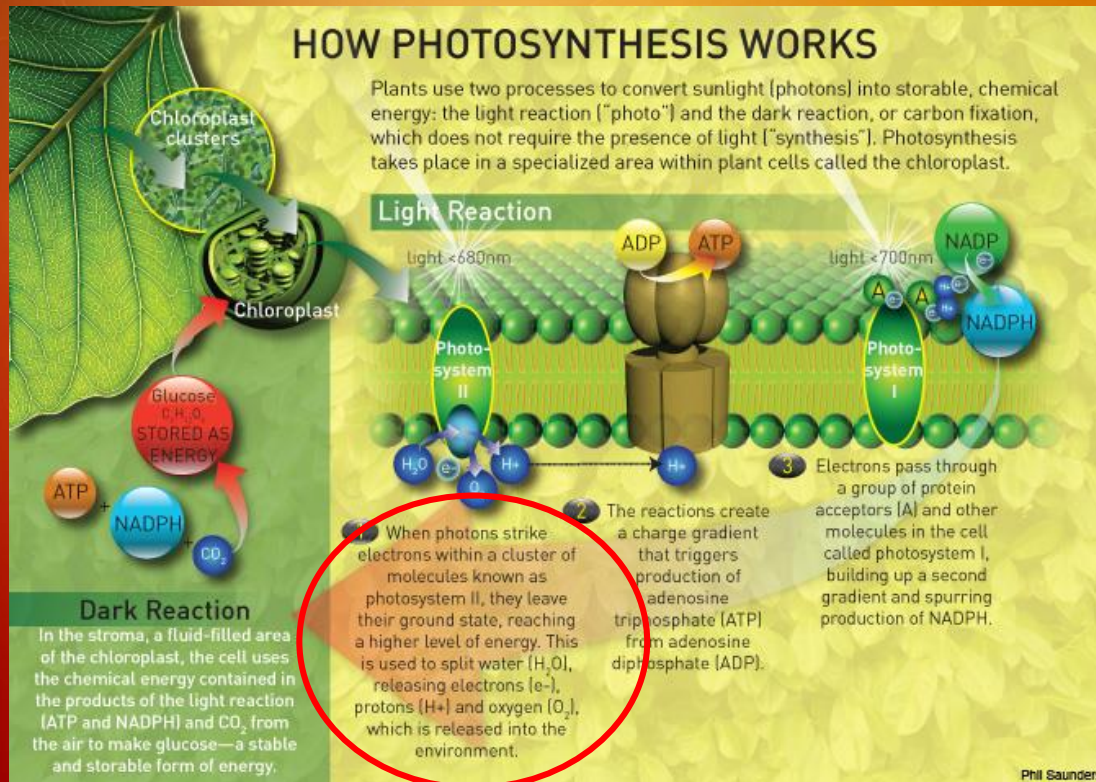
- The electromagnetic coupling constant binds electrons to protons in atoms. If it was smaller, fewer electrons could be held. If it was larger, electrons would be held too tightly to bond with other atoms.





# Fine Tuning

- Our sun is the right color. If it was more red or more blue, photosynthetic response would be weaker or nearly non-existent. A specific amount of energy is needed for the process to work properly .



# Fine Tuning

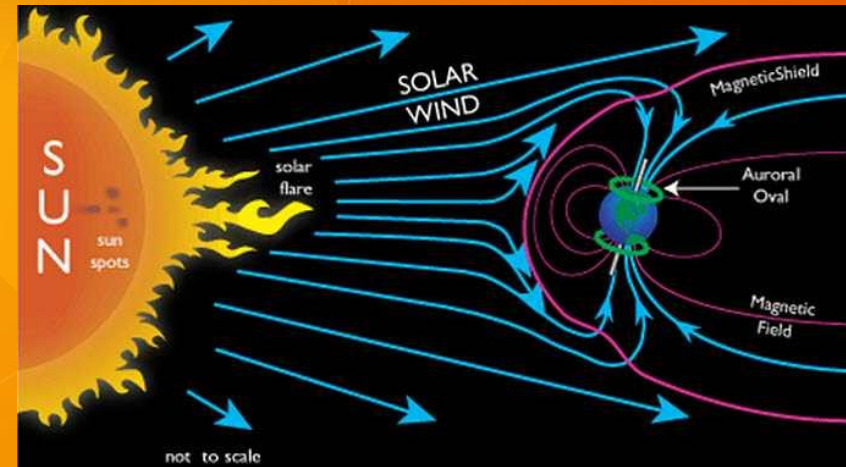
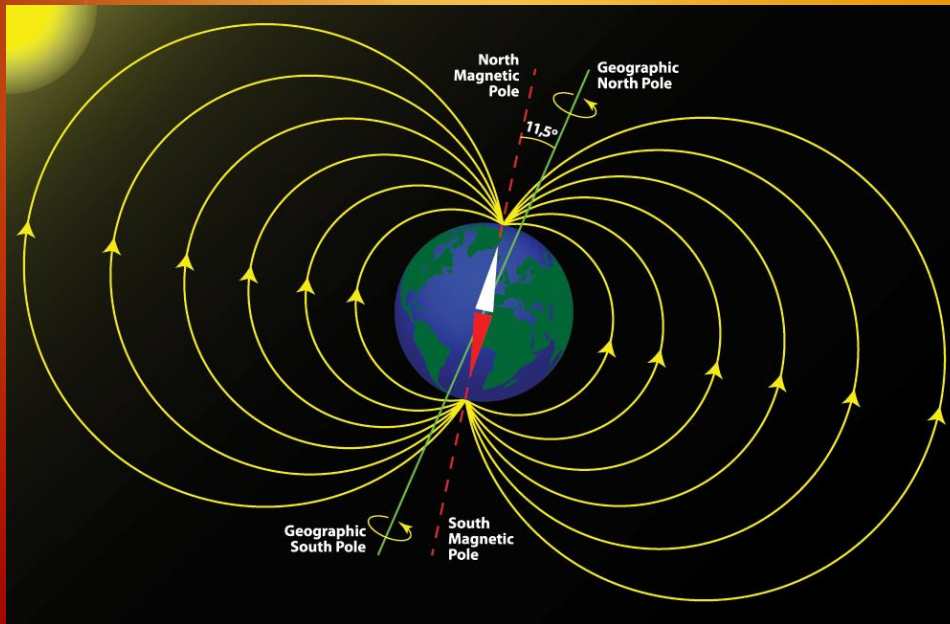
- Our sun is also the right mass. If it was larger, there would be too much high energy radiation which would destroy living cells.
- If the sun was smaller, the range of planetary distances able to support life would be too narrow; the right distance would be so close to the star that tidal forces would disrupt the planet's rotational period (not to mention massive tides!).
- If it was smaller, UV radiation would also be inadequate for photosynthesis.
- The earth's distance from the sun is crucial for a stable water cycle. Too far away, and most water would freeze; too close and most water would boil.





# Fine Tuning

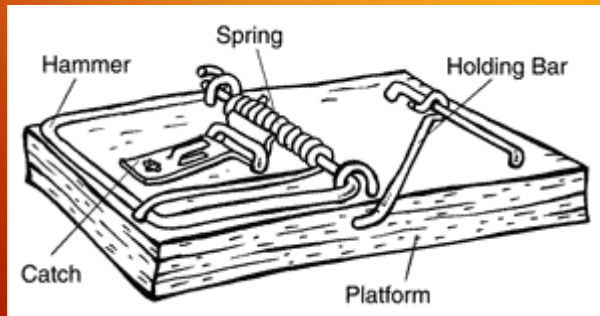
- The earth's magnetic field is just right so that we don't become crispy critters!
- We still don't have a good understanding of even how our magnetic field works...





# Fine Tuning - Irreducible Complexity

- Michael Behe thought about this in relationship to design (Darwin's Black Box).
- There are certain things (like mousetraps) that are pretty much irreducibly complex - i.e. you can't remove one of the parts without making it useless.
- Evolution states that a creature survives by having beneficial mutations. If a mutation is not beneficial, it actually leads to its death. How is a mutation beneficial that provides no value without existing in relationship to all the other "mutations"? Take for example, the eyeball...



# Fine Tuning - A few more examples out of a universe of potential examples

## Universal Constants

From galaxies and stars, down to atoms and subatomic particles, the very structure of our universe is determined by these numbers:

- Speed of Light:  $c=299,792,458 \text{ m s}^{-1}$
- Gravitational Constant:  $G=6.673 \times 10^{-11} \text{ m}^3 \text{ kg}^{-1} \text{ s}^{-2}$
- Planck's Constant:  $1.05457148 \times 10^{-34} \text{ m}^2 \text{ kg s}^{-2}$
- Planck Mass-Energy:  $1.2209 \times 10^{22} \text{ MeV}$
- Mass of Electron, Proton, Neutron: 0.511; 938.3; 939.6 MeV
- Mass of Up, Down, Strange Quark: 2.4; 4.8; 104 MeV (Approx.)
- Ratio of Electron to Proton Mass:  $(1836.15)^{-1}$
- Gravitational Coupling Constant:  $5.9 \times 10^{-39}$
- Cosmological Constant:  $(2.3 \times 10^{-3} \text{ eV})$
- Hubble Constant: 71 km/s/Mpc (today)
- Higgs Vacuum Expectation Value: 246.2 GeV

<http://www.reasonablefaith.org/transcript-fine-tuning-argument#ixzz3RxQmdaq7>

These are the fundamental constants and quantities of the universe. Scientists have come to the shocking realization that each of these numbers have been carefully dialed to an astonishingly precise value - a value that falls within an exceedingly narrow, life-permitting range. If any one of these numbers were altered by even a hair's breadth, no physical, interactive life of any kind could exist anywhere. There'd be no stars, no life, no planets, no chemistry.

# Fine Tuning - You Are Alive! What Odds!

The proper analogy (for a universe that is fine tuned to promote life) would be a lottery in which billions and billions of white balls are mixed together with one black ball, and you are told that unless the black ball is picked, you are going to be shot and killed. But then, lo and behold, a random ball is picked, and it turns out to be the black one, and you are allowed to live. You ought to think that the lottery was rigged. Why? – not because the black ball is any more improbable than any other particular white ball. Each ball is equally improbable. – but because it is overwhelmingly, incomprehensibly more probable that, whichever ball is picked, it will be white rather than black. Similarly, our universe is no more improbable than any other universe. But it is overwhelmingly more probable that whichever universe exists, it will be life-prohibiting rather than life-permitting. We still need some sort of explanation as to why a life-permitting universe exists against all probability to the contrary.

[illegible]



# Fine Tuning

**"WHEREVER PHYSICISTS LOOK, THEY SEE EXAMPLES OF FINE-TUNING." - Sir Martin Rees**

**"THE REMARKABLE FACT IS THAT THE VALUES OF THESE NUMBERS SEEM TO HAVE BEEN VERY FINELY ADJUSTED TO MAKE POSSIBLE THE DEVELOPMENT OF LIFE." - Stephen Hawking**

**"IF ANYONE CLAIMS NOT TO BE SURPRISED BY THE SPECIAL FEATURES THE UNIVERSE HAS, HE IS HIDING HIS HEAD IN THE SAND. THESE SPECIAL FEATURES ARE SURPRISING AND UNLIKELY." - David Deutsch**



# Fine Tuning

**"A COMMON SENSE INTERPRETATION OF THE FACTS SUGGESTS THAT A SUPERINTELLECT MONKEYED WITH PHYSICS . . . AND THAT THERE ARE NO BLIND FORCES WORTH SPEAKING ABOUT IN NATURE. THE NUMBERS ONE CALCULATES FROM THE FACTS SEEM TO ME SO OVERWHELMING AS TO PUT THIS CONCLUSION ALMOST BEYOND QUESTION." – Sir Fred Hoyle**

**"THERE IS FOR ME POWERFUL EVIDENCE THAT THERE IS SOMETHING GOING ON BEHIND IT ALL . . . IT SEEMS AS THOUGH SOMEBODY HAS FINE-TUNED NATURE'S NUMBERS TO MAKE THE UNIVERSE. THE IMPRESSION OF DESIGN IS OVERWHELMING." - Paul Davies**

**The heavens declare the glory of God, and the sky above proclaims his handiwork. 2 Day to day pours out speech, and night to night reveals knowledge. - God, Psalm 19:1-2**

**Is anyone listening despite what they have said ?**

# Deaf Hearers to the Speech of the Universe

So, did any of these guys run into the open arms of God?

Not even close!

18 For the wrath of God is revealed from heaven against all ungodliness and unrighteousness of men, who by their unrighteousness suppress the truth. 19 For what can be known about God is plain to them, because God has shown it to them.

For his invisible attributes, namely, his eternal power and divine nature, have been clearly perceived, ever since the creation of the world, in the things that have been made. So they are without excuse. 21 For although they knew God, they did not honor him as God or give thanks to him, but they became futile in their thinking, and their foolish hearts were darkened.

Romans 1:18-21

# Argument - We should not be surprised by a life-permitting universe because that is the only one we can observe...

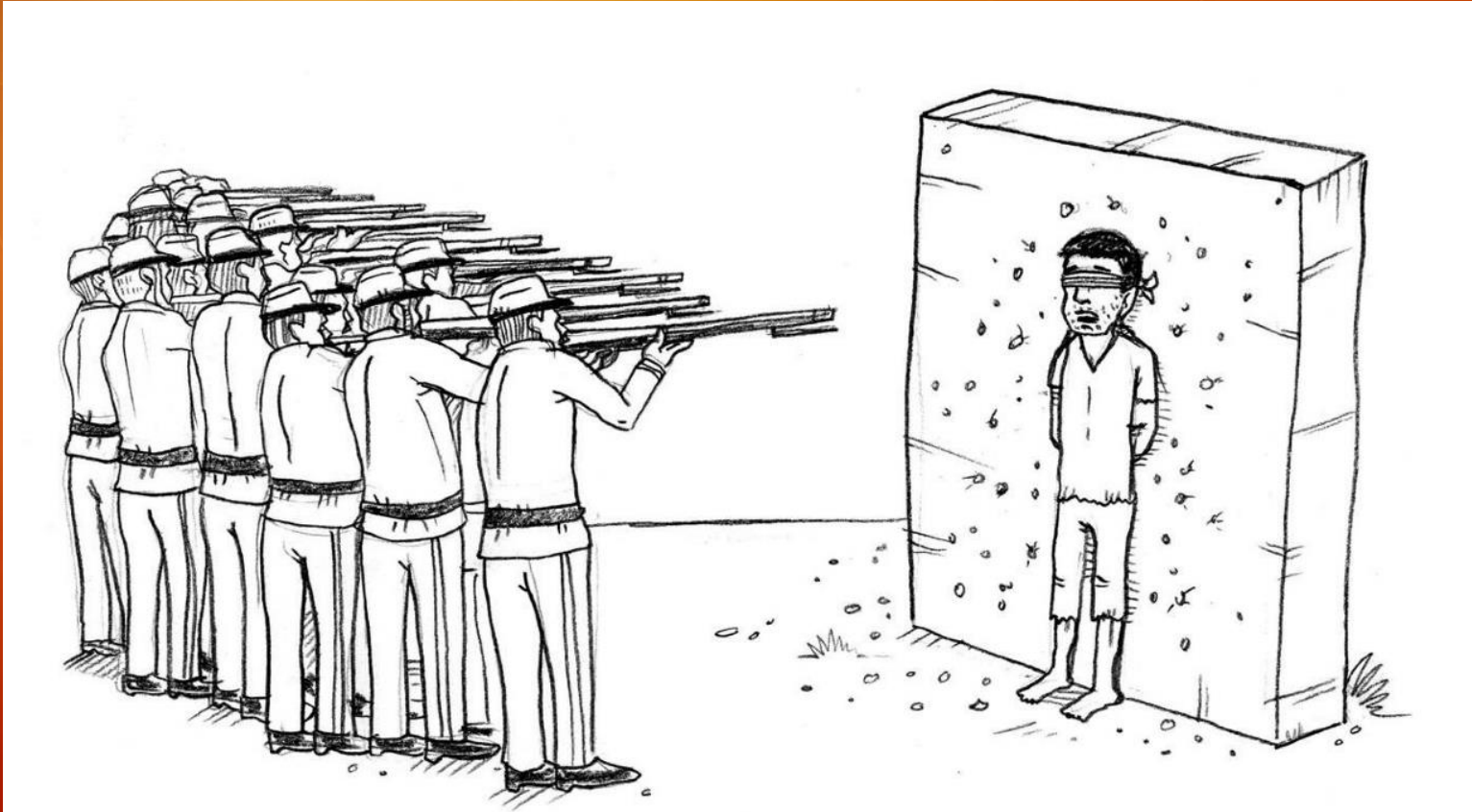
To sum up the counter argument - Imagine you're traveling abroad and arrested on trumped-up drug charges. You're dragged in front of a firing squad of one hundred trained marksmen standing at point-blank range. You hear the command given: "Ready! Aim! Fire!" You hear the deafening sound of the guns. And then you observe that you're still alive! That all of the one hundred marksmen missed! Now what would you conclude? "Well, I guess I shouldn't be surprised that they all missed! After all, if they hadn't all missed, I wouldn't be here to be surprised about it! Nothing more to be explained here!"

Response - "It's true that you shouldn't be surprised that you don't observe that you're dead, since if you were dead, you wouldn't be able to observe it. But you should still be surprised that you do observe that you're alive, in light of the enormous improbability that all the marksmen would miss. Indeed, you'd probably conclude that they all missed on purpose, that the whole thing was a set up, engineered for some reason by someone."

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**Argument - We should not be surprised by a life-permitting universe because that is the only one we can observe...**

They shouldn't have missed! Why did they? Must be by DESIGN!!!!





# Argument Against Design – The Multiverse

Summation of counter argument - According to that hypothesis, our universe is but one member of a world ensemble or “multiverse” of randomly ordered universes, preferably infinite in number. If all of these other universes really exist, then by chance alone life-permitting worlds will appear somewhere in the world ensemble. Since only finely tuned universes have observers in them, any observers existing in the world ensemble will naturally observe their worlds to be finely tuned. So no appeal to design is necessary to explain fine-tuning. It's pure chance.

Craig, William Lane (2010-03-01). On Guard: Defending Your Faith with Reason and Precision (Kindle Locations 1905-1908). David C. Cook. Kindle Edition.

Response - “If you deal the cards enough times, eventually every hand will come up.” The very fact that otherwise sober scientists must resort to such a remarkable hypothesis is a sort of backhanded compliment to the design hypothesis. It shows that the fine-tuning does cry out for explanation.

William Lane Craig - <http://www.reasonablefaith.org/multiverse-and-the-design-argument#ixzz3RoJEoOWO>

# Argument Against Design – The Multiverse

## Responding to the Multiverse Hypothesis:

- One way to respond to the many worlds hypothesis would be to show that the multiverse itself also involves fine-tuning. For in order to be scientifically credible, some plausible mechanism must be suggested for generating the many worlds. But if the many worlds hypothesis is to be successful in attributing fine tuning to chance alone, then the mechanism that generates the many worlds had better not be fine-tuned itself! This is just delaying the problem.
- Many scientists are skeptical of the many-universes hypothesis. It seems to be merely an escape mechanism to involve fine tuning! In the end, it is a “coping mechanism” or “escape mechanism”.
- Even these alternative universes must have had a beginning...which means that you should peek at the Leibniz and al-Ghazali's arguments from last week....

# Argument Against Design – Richard Dawkins

## Dawkins' Argument from the “God Delusion”...

1. One of the greatest challenges to the human intellect has been to explain how the complex, improbable appearance of design in the universe arises.
2. The natural temptation is to attribute the appearance of design to actual design itself.
3. The temptation is a false one because the designer hypothesis immediately raises the larger problem of who designed the designer.
4. The most ingenious and powerful explanation is Darwinian evolution by natural selection.
5. We don't have an equivalent explanation for physics.
6. We should not give up the hope of a better explanation arising in physics, something as powerful as Darwinism is for biology.

**Therefore, God almost certainly does not exist.**

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# Argument Against Design – Richard Dawkins

## Observations about Dawkins' argument...

- It is in no way necessary to arrive at Dawkins' conclusion even if we grant him all of his points. "Therefore, God almost certainly does not exist" does not logically follow from his argument.
- At most, (if we grant him all his premises) all that follows from Dawkins' argument is that we should not infer God's existence on the basis of the appearance of design in the universe. But that conclusion is quite compatible with God's existence and even with our justifiably believing in God's existence. Maybe we should believe in God on the basis of the cosmological argument or the moral argument. Maybe our belief in God isn't based on arguments at all but is grounded in religious experience or in divine revelation. The point is that rejecting design arguments for God's existence does nothing to prove that atheism is true or that belief in God is unjustified.



# Argument Against Design – Richard Dawkins

Observations about Dawkins' argument... Here is the argument again..

1. One of the greatest challenges to the human intellect has been to explain how the complex, improbable appearance of design in the universe arises.
  2. The natural temptation is to attribute the appearance of design to actual design itself.
  3. The temptation is a false one because the designer hypothesis immediately raises the larger problem of who designed the designer.
  4. The most ingenious and powerful explanation is Darwinian evolution by natural selection.
  5. We don't have an equivalent explanation for physics.
  6. We should not give up the hope of a better explanation arising in physics, something as powerful as Darwinism is for biology.
- Step 5 refers to the cosmic fine-tuning that has been the focus of our discussion. There is no evolutionary explanation out there for the fine tuning of physics. Dawkins has nothing by way of explanation for it, and therefore the hope expressed in step 6 represents nothing more than the faith of a naturalist. This is Deus Ex Machine in reverse...

# Argument Against Design – Directed Panspermia

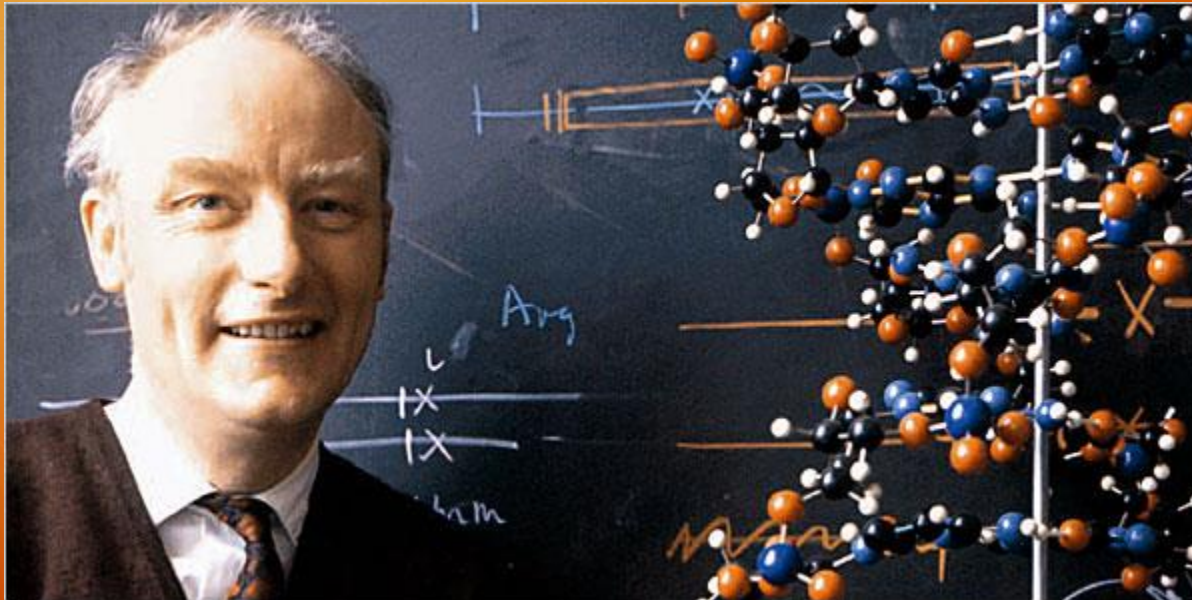
Francis Crick (who co-discovered the structure of DNA with James Watson) and Leslie Orgel once proposed that life on Earth was the result of a deliberate infection, designed by aliens who had purposely fled mother nature's seed to a new home in the sun. Crick repeatedly addressed the question of the origin of life between 1971 and 1988 (I am currently working on a historical study of Crick and Orgel's theory of Directed Panspermia and its reception).

Crick and Orgel proposed their Directed Panspermia theory at a conference on Communication with Extraterrestrial Intelligence, organized by Carl Sagan and held at the Byuraka Observatory in Soviet Armenia in 1971. This theory which they described as an “highly unorthodox proposal” and “bold speculation” was presented as a plausible scientific hypothesis. Two years after the conference they published an article in Icarus on 1973.

Crick and Orgel also suggest that the universe is sufficiently old that other intelligent civilizations could have arisen elsewhere. One of these other intelligent civilizations could have built a spaceship and seeded the universe with life. One can easily imagine a not too distant future where humans accept that our planet and all that lives within it will perish. In the unlikelihood that this is the only planet that harbors life in the universe its demise would leave a lifeless universe.

# Argument Against Design – Directed Panspermia

What is the huge problem here with Crick's theory? Note - He appears to have discarded this hypothesis just from the pure ridicule.



# Teleology – Some Final Thoughts...

The most plausible explanation for the fine tuning of the universe is that there is Designer...

Why do we avoid this so much?



# Teleology – Some Final Thoughts...

Once again, based upon these arguments alone, we are left with a faceless deity. Who or What is the Designer?

Without God revealing Himself in Scripture, we would never know certain aspects of who He is...

Long ago, at many times and in many ways, God spoke to our fathers by the prophets, but in these last days he has spoken to us by his Son, whom he appointed the heir of all things, through whom also he created the world. He is the radiance of the glory of God and the exact imprint of his nature, and he upholds the universe by the word of his power.

Hebrews 1:1-3 – Theme is “Jesus is better revelation!”