

Teleological Argument – Apologetics

3. God is the BEST explanation for the fine tuning of the universe

There are hundreds of anthropology principles that needed to be in place within one billionth of a billionth of a second after the Big Bang to allow for complex life.

Its not just infinitesimally improbable that the numbers and physics would arrange themselves with weights, arrangements, constants, and compounds in such a way that allows for life, but where did the constants that needed to be satisfied even come from? Scientists are uncomfortable with these numbers(1 in 10^{50} is considered mathematically impossible) to the extent that they've developed the lucky us hypothesis which states that the probability of even a couple of these "coincidences" being present at the split second of the Big Bang is so small (around 1 in 10^{138}) that they explain it away by shrugging their shoulders and saying, "we got lucky?" Which is laughable. Or they'll say that perhaps there are other universes in which life springs about much easier and life forms jumped universes and seeded life here to circumvent the improbability. So aliens, not God.

1. The fine tuning of the universe exists out of necessity, chance or design.
2. Necessity is not probable because the coincidences and improbable numbers are independent of the laws they fulfill so can not be necessary.
3. Chance is unlikely because of the infinitesimal improbability of life permitting circumstances.
4. Therefore design is the most likely reason for fine tuning

Simple Argument

1. The fine-tuning of the universe is due to either physical necessity, chance or design.
2. It is not due to physical necessity or chance.
3. Therefore, it is due to design.
 1. This is true unless one can postulate another reason why the universe would have the observable finely tuned measures that it has.
 - a. The first alternative holds that there's some unknown Theory of Everything (TOE) that would explain the way the universe is. It had to be that way, and there was really no chance or little chance of the universe's not being life-permitting.
 - b. Objection – Couldn't it be true that the universe we observe isn't really finely tuned because it's the only one we observe. So it just has to be.
 - i. This misses the whole concept entirely. Imagine a 2 Dimensional world. Dimensions are one of the 6 quantities in the book just 6 numbers by
 2. **What about M Theory?**
 - a. M-Theory, fails to predict uniquely our universe. String theory allows a 'cosmic landscape' of around 10^{500} different possible universes governed by the present laws of nature, so it does nothing to render the observed values of the

constants and quantities physically necessary. With respect to this first alternative, Dawkins notes that Sir Martin Rees rejects this explanation, and Dawkins says, 'I think I agree.

3. **Why are we surprised by a finely tuned universe**, it's the only one that we can observe anyways. So if the universe were not life permitting, we wouldn't be able to observe it.
 - a. Some people have tried to escape this problem by claiming that we really shouldn't be surprised at the finely-tuned conditions of the universe, for if the universe were not fine-tuned, then we wouldn't be here to be surprised about it! Given that we are here, we should expect the universe to be fine-tuned. But such reasoning is logically fallacious. We can show this by means of a parallel illustration. Imagine you're traveling abroad and are arrested on trumped-up drug charges and dragged in front of a firing squad of 100 trained marksmen, all with rifles aimed at your heart, to be executed. You hear the command given: "Ready! Aim! Fire!" and you hear the deafening roar of the guns. And then you observe that you are still alive, that *all* of the 100 trained marksmen missed! Now what would you conclude? "Well, I guess I really shouldn't be surprised that they all missed. After all, if they hadn't all missed, then I wouldn't be here to be surprised about it! Given that I am here, I should *expect* them all to miss." Of course not! You would immediately suspect that they all missed on purpose, that the whole thing was a set-up, engineered for some reason by someone. While you wouldn't be surprised that you don't observe that you are dead, you'd be very surprised, indeed, that you do observe that you are alive. In the same way, given the incredible improbability of the fine-tuning of the universe for intelligent life, it is reasonable to conclude that this is not due to chance, but to design.

Quotes on the fine tuning being true –

Just six Numbers – Martin Rees – President of the Royal Society, Dr. of astronomy and astrophysics, single handedly killed the steady state theory, credited with pioneering the understanding of cosmic microwave background radiation, quasars.

2 relate to the basic forces in the nucleus of atom
2 texture and size of universe
2 properties of space itself

Not about finding life, but about a universe where stars planets or moons are even possible.

N = 10^{36}

Epsilon = Strong Nuclear force = .007

Omega – Relative Density of the Universe - A universe within which omega was too high would have collapsed long ago; had omega been too low, no galaxies would have formed.

Lambda – Cosmological Constant – value of energy density in the vacuum of space

Q - measure of the strength of these bonds among galactic matter to form clusters

D – Number of Spatial Dimensions

Martin Rees “These six numbers constitute a ‘recipe’ for a universe. Moreover, the outcome is sensitive to their values: if any one of them were to be ‘untuned’, there would be no stars and no life. Is this tuning just a brute fact, a coincidence? Or is it the providence of a benign Creator?” Martin Rees

Paul Davies ([Agnostic-turned-Deist] Physicist; Professor at 6 Universities [Cambridge, London etc.]): “There is now broad agreement among physicists and cosmologists that the universe is in several respects ‘fine-tuned’ for life.” [“How bio-friendly is the universe?” *International Journal of Astrobiology*, vol. 2, no. 2 (2003): 115.]

Stephen Hawking: “The laws of science, as we know them at present, contain many fundamental numbers, like the size of the electric charge of the electron and the ratio of the masses of the proton and the electron. The remarkable fact is that the values of these numbers seem to have been very finely adjusted to make possible the development of life. Most sets of values would give rise to universes that, although they might be very beautiful, would contain no one able to wonder at that beauty. 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.”

Richard Dawkins ([Outspoken atheist] Biology professor at Oxford): Physicists have suggested that the laws and constants of physics are too good - as if the universe were set up to favour our eventual evolution. It is as though there were, say, half a dozen dials representing the major constants of physics. Each of the dials could in principle be tuned to any of a wide range of values. Almost all of these knob-twiddlings would yield a universe in which life would be impossible. Some universes would fizzle out within the first picosecond. Others would contain no elements heavier than hydrogen and helium. In yet others, matter would never condense into stars (and you need stars in order to forge the elements of chemistry and hence life). You can estimate the very low odds against the six knobs all just happening to be correctly tuned,” (Dawkins then gives his misconceived objection: “but then [who fine-tuned God](#)”) [“Why There is Almost Certainly no God” *The Huffington Post* (Oct 23, 2006).]

Greg Bothun (Physics professor, Astronomy; Harvard Astrophysics Res. fellow): “However, in the past 20 years our understanding of physics and biology has noted a peculiar specialness to our Universe, a specialness with regard to the existence of intelligent life. This sends up warning signs from the Copernican Principle, the idea that no scientific theory should invoke a special place or aspect to humans.

Philip Ball (Physicist, 10+ years editor for *Nature*): “Our universe is so unlikely that we must be missing something... the incomprehensibility of our situation even drives Susskind's team to ponder whether an ‘unknown agent intervened in the evolution [of the Universe] for reasons of its own’...”

Brad Lemley (Senior correspondent for *The Washington Post* and *Discover Magazine*): “The universe is unlikely. Very unlikely. Deeply, shockingly unlikely.”

Steven Weinberg (Outspoken atheist, Nobel laureate in high energy physics): “...how surprising it is that the laws of nature and the initial conditions of the universe should allow for the existence of beings who could observe it. Life as we know it would be impossible if any one of several physical quantities had slightly different values.”

Freeman Dyson (Mathematician, physicist, famed contributor to quantum mechanics & solid-state physics): “The more I examine the universe and the details of its architecture, the more evidence I find that the universe in some sense must have known we were coming.”

Frank Tipler (Cosmologist, mathematical physics professor): “When I began my career as a cosmologist some twenty years ago, I was a convinced atheist. I never in my wildest dreams imagined that one day I would be writing a book purporting to show that the central claims of Judeo-Christian theology are in fact true, that these claims are straightforward deductions of the laws of physics as we now understand them. I have been forced into these conclusions by the inexorable logic of my own special branch of physics.” [*The Physics Of Immortality* (Doubleday, 1994), Preface.]

Fred Hoyle (Former atheist “greatly shaken” by fine-tuning; influential astrophysicist): “A common sense interpretation of the facts suggests that a superintellect has monkeyed with physics, as well as with chemistry and biology, 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.”

122 (anthropoid coincidences agreed upon that are needed for life to exist)

If you just assign an arbitrary 1/10 – the odds of hitting them are 1 one thousandth of a trillionth.

67,000 (speed at which we are zipping thru universe.)

1,000 (rotational speed)

10^{22} (planets in universe)

10^{70} (atoms in the universe)

23.5 (tilt of earth)

3.4% (salt content of ocean and bloodstream)

93 million (miles to sun)

10^{60} (mass density of objects, so for just one anthropoid coincidence is close to as many as atoms in universe)

1/7000 (hydrogen must convert that amount of its mass to helium every second)

- Odds of universe happening by chance $1:10^{138}$ (astrophysicist Hugh Ross)
- Odds of gravitational force $1:10^{40}$ imagine a 14 billion light year long ruler.

10^{138} (chance of life randomly)

Hoyle and bower

“A common sense interpretation of the facts suggests that a superintellect has monkeyed with physics, as well as with chemistry and biology, 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.”

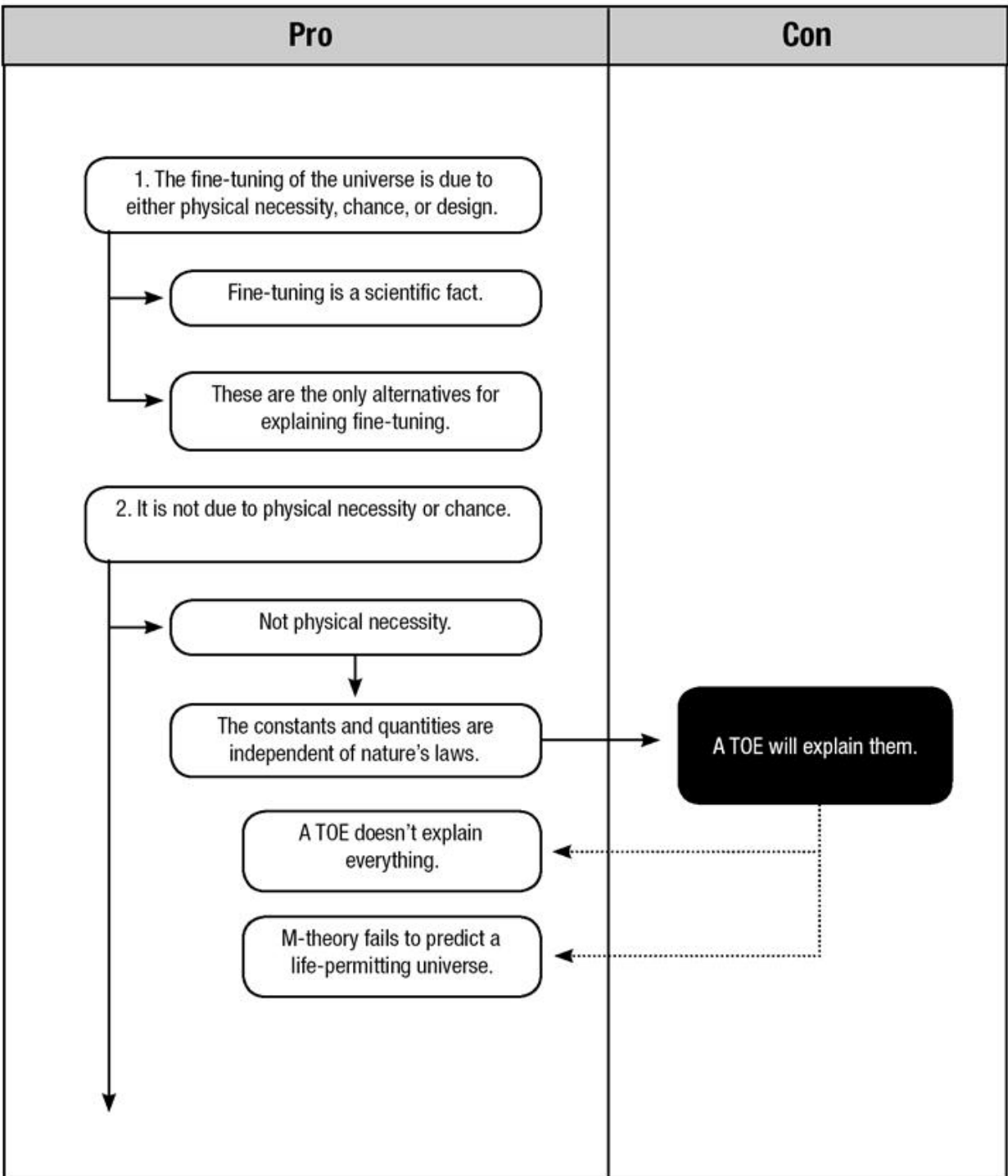
Harvard evolutionary geneticist.- Richard Lewontin

‘Our willingness to accept scientific claims that are against common sense is the key to an understanding of the real struggle between science and the supernatural. We take the side of science in spite of the patent absurdity of some of its constructs, *in spite* of its failure to fulfill many of its extravagant promises of health and life, *in spite* of the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment, a commitment to materialism.

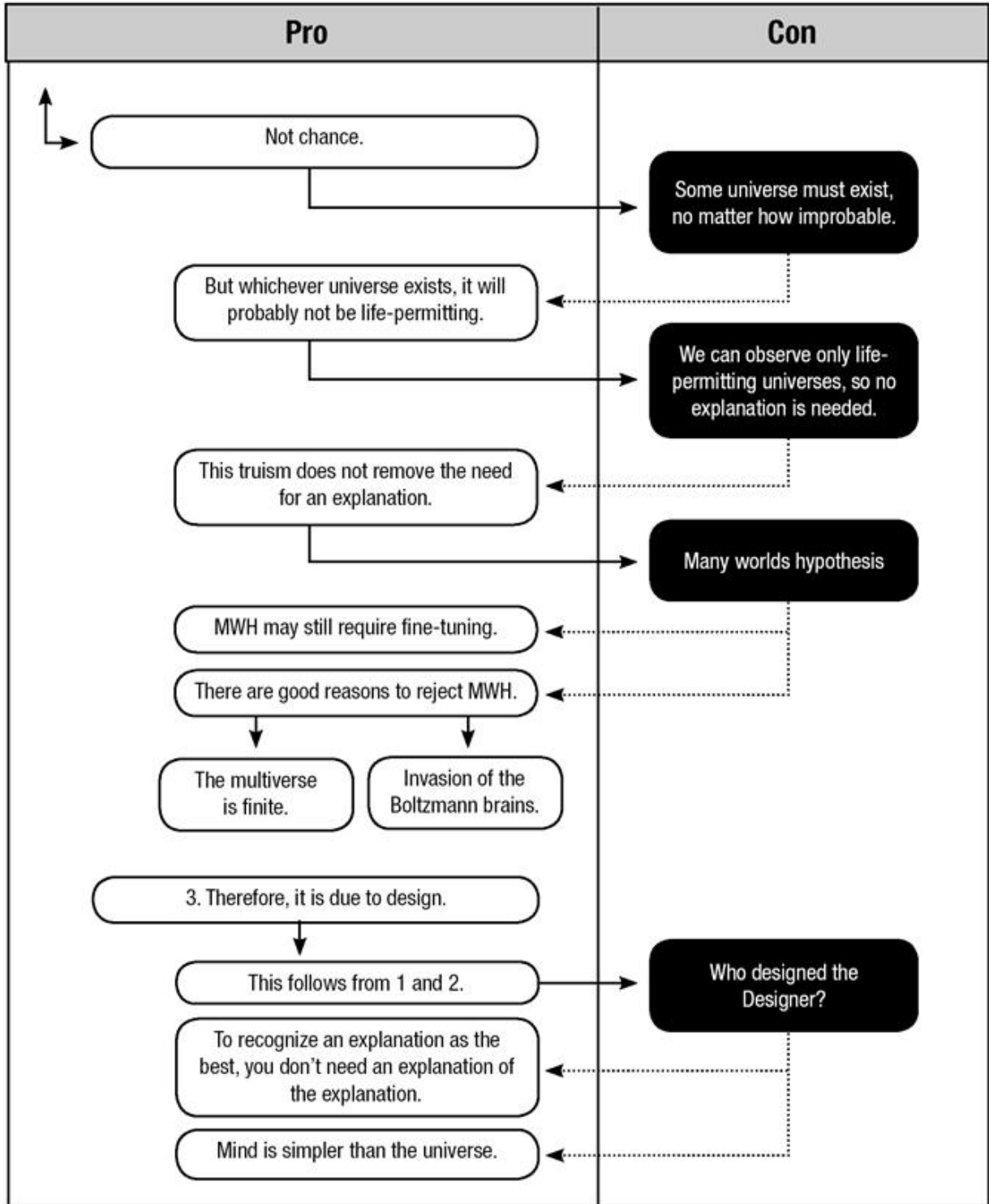
It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our *a priori* adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is absolute, for we cannot allow a Divine Foot in the door.

If you just assign an arbitrary 1/10 – the odds of hitting them are 1 one thousandth of a trillionth.

THE DESIGN ARGUMENT



THE DESIGN ARGUMENT (cont.)



Dawkins Best Argument Against Intelligent Design through Teleology

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

Objections to Dawkins

1. The conclusion doesn't follow from the premises
2. Even if design were completely explainable by naturalistic means the only conclusion this set of events ought to arrive at is that the observable universe only appears designed and isn't the result of a God. Which doesn't mean that God doesn't exist.
3. Step 5 says we don't have a better theory then step 6 assumes that we all jumped on board with it and reached the conclusion that faith in naturalism is rational...Therefore God doesn't exist?
4. The world ensemble theory is complex, therefore who designed that? Dawkins doesn't seem to think the complexity of an M-verse would suggest intelligence either?
5. First, in order to recognize an explanation as the best, you don't need to have an explanation of the explanation. This is an elementary point in the philosophy of science. If archaeologists digging in the earth were to discover things looking like arrowheads and pottery shards, they would be justified in inferring that these artifacts are not the chance result of sedimentation and metamorphosis, but products of some unknown group of people, even though they had no explanation of who these people were or where they came from. Similarly, if astronauts were to come upon a pile of machinery on the back side of the moon, they would be justified in inferring that it was the product of intelligent agents, even if they had no idea whatsoever who these agents were or how they got there.