

2. The Fine-Tuning Argument

Video: The Fine-Tuning of the Universe (reasnablefaith.org)

Youtube: <https://www.youtube.com/watch?v=EE76nwimuT0>

- (1) The fine-tuning of the universe is due to either *necessity*, *chance*, or *design*.
- (2) It is not due to *necessity* or *chance*.
- (3) Therefore, the fine-tuning of the universe is due to *design*.

Support for (1)

What do we mean by fine-tuning? “Fine-tuning” means that given the laws of the universe, the constants and quantities fall into an extraordinarily narrow range of life-permitting values, and small deviations from these values would render the universe life-prohibiting. *Note:* Fine-tuned doesn’t mean “designed” or “deliberately adjusted.” That would assume what the argument is supposed to show: there is a designer.

What do we mean by life? The property of organisms to take in food, extract energy from it, grow, adapt to their environment, and reproduce. The claim that the universe is fine-tuned is not a claim about what form the organisms might take (e.g., that they are carbon-based).

Examples of these constants and quantities:

(a) The Gravitational Constant in Newton’s Law of Gravity: $F = G(m_1m_2/r^2)$; $G = 6.673 \times 10^{-11} \text{ m}^3 \text{ kg}^{-1} \text{ s}^{-2}$

(b) The Strong Nuclear Force which binds neutrons and protons together to create atomic nuclei.

(c) Other examples of these constants and quantities:

- Speed of Light: $c = 299,792,458 \text{ m s}^{-1}$
- 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: 5.9×10^{-39}
- Cosmological Constant: $(2.3 \times 10^{-3} \text{ eV})$
- Hubble Constant: 71 km/s/Mpc (today)
- Higgs Vacuum Expectation Value: 246.2 GeV

Support for (2)

Necessity: Claims that the constants and quantities had to be what they are, and couldn’t have been otherwise. It is *impossible* for the universe *not* to be fine-tuned. The constants must have the values they do, and there was no chance of the universe’s not being life-permitting.

Problem: This is highly implausible. It doesn’t seem that a life-prohibiting universe is impossible. Moreover, there is no evidence to suggest that the constants and quantities are determined by the laws of nature.

Chance: The fine-tuning of the universe neither has an explanation nor needs one. Sometimes extraordinarily lucky things happen. End of story. We won the cosmic lottery.

Problem: This is so incredibly unlikely that it's statistically impossible. Suppose you were playing poker for money with someone and he got 10 Royal Flushes in a row. When you question him about it, he says, "Hey, sometimes really, really lucky things happen." Should you let him leave with your money? No, because the odds of that happening are so low that such a possibility shouldn't be taken seriously.

Multiverse: There are many, many universes that exist, each with a randomly selected set of values. Our universe is just one among the near-infinite number of universes, so it's not surprising that there is a universe that was fine-tuned for life.

Problems:

(a) There is no scientific evidence for thinking that there is a multiverse. This looks like an *ad hoc* attempt to avoid the design conclusion.

(b) How did all these universes come about? We would need a universe generator that cranks out a huge number of universes so that eventually a life-permitting universe will pop out. The universe generator itself would need to be fine-tuned to produce the right sort of universes.

(c) Small patches of order are more probable than big patches of order. So the most probable observable universe would be a small one inhabited by a single observer (a Boltzmann brain). But what we observe is that the universe is highly ordered and inhabited by billions of observers. So even if the multiverse existed, it wouldn't do anything to explain fine-tuning. Our universe would still be exceedingly improbable.

Common Objections

Objection 1: Such a being has not been very efficient. It has taken nearly 14 billion years just to produce one species capable of relationship with him. This suggests he is not omnipotent.

Reply: Efficiency is an important value only for someone with limited time or limited resources. God is not limited in time or resources. Perhaps God is not like an engineer, but is more like an artist or gourmet chef, who enjoys creating a beautiful universe.

Objection 2: Anthropic Principle. Only a universe with fine-tuning will have living beings to observe the fine-tuning. If the universe was not fine-tuned, then we would not be here to observe it. But we are here. So our discovering fine-tuning is not at all surprising. Put differently: What is the probability of a fine-tuned universe given that we are here to ask the question? Answer: 1

Reply: The fine-tuning argument depends on this claim:

It is highly improbable that a universe exists which is finely tuned for there to be observers within it.

Not this claim:

If the universe contains observers within it, it is highly improbable that they will observe the universe to be fine-tuned for their existence.

Objection 3: Who designed the designer? As Richard Dawkins says, a being capable of fine-tuning the constants and quantities would have to be at least as complex as the universe, meaning it “would have to be at least as improbable as the finely tuned combination of numbers itself, and that’s very improbable indeed.” So the designer would need a designer, and so on. So a designer isn’t really an adequate explanation for the fine-tuning of the universe.

Reply:

(a) In order to recognize an explanation as the best, we don’t need to have an explanation of the explanation. First, imagine astronauts discover a biosphere on Mars. Wouldn’t they be justified in inferring that the biosphere is the product of intelligent agents even if they have no idea who these agents were or how they got there? Second, if Dawkins was right that all explanations require explanations, then science could never explain anything! Why? Whatever explanation was offered would itself need an explanation. Requiring explanations for explanations leads to an infinite regress! Nothing in science could ever be explained. And this would destroy science.

(b) Must a divine Designer be an entity of comparable complexity to the universe? Non-physical entities are not composed of parts. Thus, if the Designer is a non-physical entity, like a mind, then the Designer need not be complex.

Objection 4: The argument does nothing to support the claim that God is good rather than evil or neutral.

Reply: The argument is not intended to show that God is good. That’s what the Moral Argument is for.

3. The Moral Argument

Video: The Moral Argument (reasonablefaith.org)

Youtube: <https://www.youtube.com/watch?v=OxiAikEk2vU>

- (1) If God does not exist, objective moral values and duties do not exist.
- (2) Objective moral values and duties do exist.
- (3) Therefore, God exists.

Support for (2)

What does it mean to say that there are objective moral values and duties? “Objective” means true independently of what any human being thinks. Values have to do with whether something is good or bad. Duties have to do with whether something is right or wrong.

Why think there are such things? In our ordinary experience we recognize moral values and duties that impose themselves on us. We understand that things like rape, child abuse, discrimination on the basis of race, slavery, and cruelty aren’t just socially unacceptable, they are objectively wrong. There is no more reason to deny the truth of claims like, “Torturing babies for fun is wrong,” than there is to deny the truth of claims like, “This podium exists.” We could be mistaken. But without some really good reason for thinking we are mistaken, we are justified in believing these claims are true.

Support for (1)

It is difficult to see what there could be apart from God that could ground objective moral values and duties. There must be some standard or paradigm of goodness, and that would seem to be God Himself. Moreover, moral laws require a moral lawgiver. What God commands is good because he himself is the ultimate standard of what is good.

What are the alternatives?

- a. Naturalistic Evolution
- b. Secular Humanism
- c. Moral Supervenience
- d. Atheistic Moral Platonism

a. Naturalistic Evolution: Moral values are just the byproduct of biological evolution and social conditioning. Thinking there are objective moral values aids in the perpetuation of our species.

Problem: That doesn’t seem to make moral values objectively binding and true. After all, it’s not wrong for a cat to kill a mouse, or another cat. Why should things be different with human beings? If we are merely the accidental byproducts of nature which evolved only relatively recently, then our belief that there are objective moral values and duties is no more than a trick played on us by our genes to get us to cooperate. It would seem that the murderer who decides to disregard herd morality is doing nothing more serious than simply rejecting social conventions and norms. Moreover, had our evolutionary history gone differently, we might have had a totally different set of moral values and duties, or none at all. That would mean that the moral values and duties that we do have are arbitrary; they’re just the product of chance.

b. Secular Humanism: What is morally good is what promotes human flourishing, and what is bad is what detracts from human flourishing.

Problem: On atheism, what reason is there for thinking that human flourishing is objectively good? Why think that harming people is objectively bad? Why would it be wrong to harm another member of your species? On atheism, human beings are just slightly advanced primates. Why think human beings are more valuable than chimpanzees or baboons? On atheism, this just seems to be an unjustified bias towards one's species (what is called "speciesism").

c. Moral Supervenience: Moral properties supervene necessarily on certain natural states. For example, the property of moral goodness supervenes on a man's rescuing a drowning child, and the property of moral badness supervenes on a man's raping someone.

Problem: If atheism is true, why think that there are any moral properties, or that such things supervene on natural states? Why think that the non-physical property of moral goodness supervenes on a man rescuing a drowning child, and the non-physical property of moral badness supervenes on a man's raping someone? We need an explanation of why moral properties supervene on certain states and not others, and it's difficult to see what that explanation could be.

d. Atheistic Moral Platonism: Objective moral values exist as abstract objects, but they are not grounded in God. They just exist.

Problem: First, it is difficult to make sense of this view. What does it mean to say that moral values, like *justice* or *mercy*, just exist, even in the absence of people? Second, suppose objective moral values exist independently of God. How does that result in moral obligations for me? Why am I obligated to align my life with one set of abstract objects—e.g., *justice*, *mercy*—rather than another—e.g., *cruelty*, *selfishness*? Third, how is it that we are able to perceive these abstract objects on atheism? It is incredibly improbable that out of some blind evolutionary process just the sort of creature would emerge that could apprehend this abstractly existing realm of moral values.

Common Objections

Objection 1: We can formulate a system of ethics without any reference to God. Moreover, atheists can be moral. So clearly we don't need God for ethics.

Reply: This misunderstands the issue. The question is not: Can we formulate a system of ethics without any reference to God? It is also not: Can we live moral lives without being theists? The argument allows for a 'Yes' answer to both of those questions. And it is not: Can we recognize the existence of objective moral values without reference to God? Rather, the question is: Can there be objective moral truth if God doesn't exist. This is a question about what grounds moral truths—what makes them true.

Objection 2: There are no objective moral truths.

Reply: Do you really think that slavery, rape, discrimination on the basis of race, etc. aren't *really* wrong? It's not *really* true that torturing babies for fun is wrong? If I were to steal money from your wallet, I didn't do anything that was unjust or morally wrong?

Objection 3: Euthyphro Dilemma. Our moral duties can't be determined by God's commands. Why not? Because we need to ask: Why does God command what He does? If God doesn't have reasons for commanding what he does, then our moral duties are arbitrary. God just happened to prohibit rape and torture, so they are wrong. But he could have just as easily commanded rape and torture, and then they would have been right. But this is mistaken. Right and wrong aren't arbitrary. So that means that God would have to have reasons for commanding what he does. But if that's right, then it's those reasons, and not God's commands, that make actions right or wrong. This means that God is just the "middleman" for moral duties.

Reply: God's commands are not arbitrary. His commands flow from his nature which is itself the standard of what is good. God is the being than which none greater can be conceived. He is the paradigm of goodness. God commands what is good because *he* is good. As an illustration, consider the old meter bar in Paris, which defined what a meter was—not by conforming to some abstract length, but by being the paradigm of what a meter is. Similarly, for God as the being than which none greater can be conceived, good is defined in terms of the character qualities that he has, like love, justice, etc.