

The Teleological Argument

Question; The Teleological argument identifies a design and purpose in the material universe and further, that the cause of this is God. Is it justified in making either of these claims?

Introduction and Context

The Teleological Argument, otherwise known as the Intelligent Design argument, proposes that the structure and nature of the universe we experience today could not have come about by pure chance. Proponents of this position bring evidence of a grand design, the logical consequence being there must be a designer, and this designer is God.

This hypothesis has been reinforced over the past one hundred years by scientific observations and calculations regarding the mathematical laws of nature. These fundamental constants are set at extremely precise values, a small variation from which would mean human life, the planet Earth and even the entire universe would not and could not exist in its current form. Theists argue that this fine-tuned calibration could not have happened by chance, and as stated above, implies a designer and again this designer is God. Some atheists and physicists have stated that the Teleological Argument is the best argument for Intelligent Design and the existence of God.¹

Intelligent Design

Saint Thomas Aquinas, in his book titled *Summa Theologiae*, proposed five arguments for the existence of God.² In his final point he observes that order can be seen in the world and this could not have come about by chance. Six centuries following Aquinas, William Paley, an eighteenth century English clergyman and Christian philosopher, argues again for Intelligent Design by proposing an inductive argument by analogy using the example of a watch and a watchmaker.³ A watch, Paley argues, has a clear teleology, that

¹ Sean Carroll debating William Lane Craig; *God and Cosmology* [video]. 2014 <<https://www.youtube.com/watch?v=X0qKZqPy9T8>> [Accessed 5 August 2020], 38:42. And Richard Dawkins, *The God Delusion* (London: Penguin Books, 2006), p. 79.

² Saint Thomas Aquinas, *Summa Theologiae*, trans. by Fathers of the English Dominican Province (Perryburg: Benziger Bros, 1947) <<https://d2y1pz2y630308.cloudfront.net/15471/documents/2016/10/St.%20Thomas%20Aquinas-Summa%20Theologica.pdf>> [Accessed 6 June 2020].

³ William Paley, *Natural Theology; Or, Evidences Of The Existence And Attributes Of The Deity. Collected from The Appearances Of Nature*, 12th edn (London: Printed for J. Faulder) <<http://darwin-online.org.uk/content/frameset?itemID=A142&viewtype=text&pageseq=1>> [Accessed 14 August 2020], chapters 1-2.

being the telling of the time and it was designed specifically for that purpose. Even if one had no knowledge of watches, it would be clear that the watch had a maker and a designer. This would remain the case even if the watchmaker were unseen and unknown, and even if the watch was not working or had some missing parts.

Paley then extends this analogy to the natural world by stating;

Every indication of contrivance, every manifestation of design, which existed in the watch, exists in the works of nature; with the difference, on the side of nature, of being greater and more, and that in a degree which exceeds all computation.⁴

Similar observations are made by David Hume's character Cleanthes when he states that the whole world is one great machine authored by a deity and '[...] adjusted to each other with an accuracy which ravishes into admiration all men who have ever contemplated them'.^{5,i} Antony Flew, when describing his conversion from atheism to theism, states that his change in faith is based on the very existence of nature, that it is intelligently organised and obeys very specific laws.^{6,ii} Paul Dirac, a theoretical physicist who made fundamental contributions to the theory of quantum mechanics said; 'God is a mathematician of a very high order and He used advanced mathematics in constructing the universe'.⁷ Even Charles Darwin writes in his autobiography:

Reason tells me of the extreme difficulty or rather impossibility of conceiving this immense and wonderful universe, including man with his capability of looking far backwards and far into futurity, as the result of blind chance or necessity. When thus reflecting I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man; and I deserve to be called a Theist.⁸

Paley concludes; 'The marks of design are too strong to be gotten over. Design must have a designer. That designer must be a person. That person is GOD'.⁹

Paley, and subsequent supporters of the design argument, offer two basic categories of evidence to support their position, these being biological and cosmological.¹⁰

⁴ Paley, *Natural Theology*, pp.17-18.

⁵ David Hume, *Dialogues Concerning Natural Religion* (1779) <<http://www.gutenberg.org/cache/epub/4583/pg4583.txt>> [Accessed 4 June 2020], part 2.

⁶ Antony Flew, *There Is A God* (London: HarperCollins, 2007), pp.88-89.

⁷ Paul A. M. Dirac, "The Evolution of the Physicist's Picture of Nature," *Scientific American* 208, no. 5, May 1963 (1963), p. 53.

⁸ Charles Darwin, *The Autobiography of Charles Darwin*, ed. Nora Barlow (London: Collins, 1958), pp. 92-3.

⁹ Paley, *Natural Theology*, p.441.

¹⁰ Paul Davies, *The Goldilocks Enigma. Why Is The Universe Just Right For Life* (London: Penguin Books, 2006), p. 218.

Biological (The Irreducible Complexity Argument)

Almost fifty years after Paley's book, Charles Darwin published *On The Origin Of Species* and thus brought the ideas of evolution to the debate on Intelligent Design. Although Darwin's theory of evolution and natural selection were, and in some cases still are, challenged, a number of theologians now accept a form of Darwinian evolution.¹¹ There remain, however notable exemptions; Jonathan Wells, a theologian and anti-evolution activist, goes as far to call evolution "Zombie Science" claiming not only that Darwin was wrong, but his ideas have corrupted religion, education and science.¹²

Notwithstanding outright denial, many Christian theologians have moved their attention away from the doctrinal explanation of creation, that of God creating every species individually as described in Genesis, to a focus on merging evolutionary theory with the specifics of Intelligent Design. Of special interest are certain organs or organisms that contain such complexity and organisation, that they bring into doubt the notion they could come into existence by evolutionary chance. One such example of this is the eye and even Darwin had difficulty understanding how it could evolve, he writes;

To suppose that the eye, with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have formed by natural selection, seems, I freely confess, absurd in the highest possible degree.¹³

The crux of the contention, and indeed other examples, is not only is the human eye complicated, it contains many interconnecting and cooperating components and the removal of one part would severely compromise its function. Supporters of Intelligent Design question how these parts could have evolved separately, especially when the essence of Darwin's theory is slow, gradually and incrementally evolution, and then brought together to facilitate sight?¹⁴ Such examples of "Irreducible Complexity" reintroduces design, and hence God, back into evolution.

¹¹ Davies, *The Goldilocks Enigma*, p. 220.

¹² Jonathan Well, 'Jonathon Wells Presents His Latest Book Zombie Science', Discovery Science [video]. <<https://youtu.be/I2UHLPVHjug>> [Accessed 15 September 2020], 50:06.

¹³ Charles Darwin, *On The Origin Of Species*, 1st edn (London, 1859) <<http://www.gutenberg.org/cache/epub/1228/pg1228.txt>> [Accessed 14 August 2020].

¹⁴ Davies, *The Goldilocks Enigma*, p. 220.

Cosmological (The Fine-Tuning Argument)

In science there are a number of scientific constants, also known as Fundamental Constants that define the nature of the universe. Ethan Siegel, Science writer for Forbes magazine, lists twenty six such constants, although fifteen of these can actually be combined.¹⁵ These constants describe properties in physics such as the mass of fundamental particles, the speed of light and the value of certain forces such as gravity. These values, which are measured and calculated to a very high degree of accuracy, in all cases to many decimal places, are of extreme importance. Any small variation would result in a very different universe or even that the universe we experience today could not have been created.

Richard Swinburne, observes; 'If several of the constants had a value greater or less than their actual value by one part in a million, no animal life, let alone human life, would have evolved'.¹⁶ Likewise Stephen Hawkins, writes;

Nevertheless, it seems clear that there are relatively few ranges of values for the numbers that would allow the development of any form of intelligent 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.¹⁷

William Craig Lane summarizes the position of Christian philosophers when he states;

[...] for the universe to permit life so defined, whatever form organisms might take, the constants and quantities have to be incomprehensibly fine-tuned. In the absence of fine-tuning, not even atomic matter or chemistry would exist, not to speak of planets where life might evolve!¹⁸

And; 'The universe appears, in fact, to have been incredibly fine-tuned from the moment of its inception for the production of intelligent life on Earth at this point in cosmic history'.¹⁹

As with the irreducible complexity argument, the fine-tuning position questions the notion that life, especially human life, could exist by pure chance.

¹⁵ Ethan Siegel, "It Takes 26 Fundamental Constants To Give Us Our Universe, But They Still Don't Give Everything", *Forbes*, August 2015 (2015) <<https://www.forbes.com/sites/ethansiegel/2015/08/22/it-takes-26-fundamental-constants-to-give-us-our-universe-but-they-still-dont-give-everything/#6fbeb934b86>> [Accessed 15 August 2020].

¹⁶ Richard Swinburne, *Is There A God?*, 2nd edn (Oxford: Oxford University Press, 2010), p. 54.

¹⁷ Stephen Hawkins, *A Brief History Of Time* (London: Bantam Press, 1988), p. 139.

¹⁸ William Lane Craig, *Reasonable Faith*, 3rd edn (Illinois: Crossway Books, 2008) < https://www.difa3iat.com/wp-content/uploads/2014/08/William_Lane_Craig_Reasonable_Faith_Christian_Truth_and_Apologetics__2008-3.pdf > [Accessed 5 July 2020].

¹⁹ William Lane Craig and M. McLeod, *Reasonable Faith with William Lane Craig*, 1990, <<https://www.reasonablefaith.org/writings/scholarly-writings/the-existence-of-god/the-teleological-argument-and-the-anthropic-principle/>> [Accessed 10 September 2020].

Richard Swinburne nicely brings these two threads together when he writes;

This explanation of the existence of complex organisms is surely a full explanation, but it is not an ultimate explanation of that fact. For an ultimate explanation we need an explanation at the highest level of why those laws rather than any other ones operated, and why there were those chemicals on earth. The laws of evolution are no doubt consequences of laws of chemistry governing the organic matter of which animals are made. And the laws of chemistry hold because the fundamental laws of physics hold. But why just those fundamental laws of physics rather than any others?²⁰

Objections to Teleological Arguments

Rebuttals to the core Teleological argument, and the later refinements that came with biological irreducible complexity and cosmic fine-tuning, are summarized as follows;

- 1) God in the gaps.
- 2) Other models of the universe.
- 3) From certainty to probability.
- 4) Was the Universe created for human beings?
- 5) If there is a designer, why the Abrahamic God?

1. God in the Gaps

With the advent of evolution, Theist thinking also evolved to a new model where God created the initial conditions for the universe, and then intervened to nudge specific genetic adaptations in various lifeforms, including the eventual creation of homo-sapiens. Whilst the concept of divine intervention was not new, as evidenced in Tora, Bible and Koran, this latest revision is concerning to Abrahamic theologians, as it implies three very specific characteristics which are not divine in nature.

- 1) If God was present periodically, then there are also times when God was not present.

This is a challenge to God's omnipresence.²¹

- 2) If God intervened to make generic corrections, then this implies previous interventions where not successful. This is a challenge to God's omniscience.²²

- 3) If the power of God was insufficient to achieve the desired goal, resulting in changes and modification to the grand design. This is a challenge to God's omnipotence.

²⁰ Richard Swinburne, *Is There A God?*, 2nd edn (Oxford: Oxford University Press, 2010), p.54.

²¹ Henry Drummond, *The Lowell Lectures on the Ascent of Man* (New York: J.Pott & Co., 1894), pp. 427-428.

²² Richard Dawkins, *The God Delusion* (London: Penguin Books, 2006), p. 78.

Further, if God was filling the gaps in human knowledge, and these gaps were subsequently explained and closed by science, then as the number of gaps reduce, God is pushed towards the sidelines. If this were to continue and science were to find increasingly more answers, then ultimately, to evoke and paraphrase Nietzsche, God would indeed be dead.²³

2. Other Models of the Universe

The classic theist position on the nature of the universe is basically binary, that being it either came about by chance or was designed by God. Paul Davies, in his book *The Goldilocks Enigma*, proposes there may be eight potential models that could explain the nature of the universe; 1) The Absurd Universe, 2) the Unique Universe (otherwise known as the Anthropic Principle), 3) the Multiverse, 4) Intelligent Design, 5) the Life Principle, 6) the Fake Universe, 7) the Self Explaining Universe and 8) None of the above.^{24,iii}

The first six models by Davies' account assume a finite beginning to the universe and hence an initial cause. However, they all fall into the trap of not being above to define the cause of the first cause, for example in the case of number four, who created God. To avoid the 'it's turtles all the way down' scenario, Davies introduces the humorous concept of the 'self-levitating super-turtle'.^{25,iv} His seventh model introduces the idea of an infinite universe that is created and destroyed in endless cycles. This idea is common in eastern philosophy especially in Hindu, Buddhist and Taoist thinking. This model has come to recent prominence via work done by Roger Penrose.²⁶ These eastern models also propose a form of universal consciousness, the very nature of which is conducive with creating a universe that is bio-friendly and hence has the parameters favourable to life built into the model. With eight (or possibly more) different types of universe, the challenge for supporters of Intelligent Design is to explain why their preferred model is more probably than others.

²³ Friedrich Nietzsche, *The Gay Science*, trans. by Walter Kaufmann (New York: Vintage Books, 1974).

²⁴ Davies, *The Goldilocks Enigma*, pp. 295-303.

²⁵ Davies, *The Goldilocks Enigma*, p. 246. Also see endnote iii for a more detailed explanation of the turtle metaphor.

²⁶ Roger Penrose has advocated a model referred to as Conformal Cyclic Cosmology (CCC). Roger Penrose, "Sir Roger Penrose: New Cosmological View of Dark Matter, which Strangely and Slowly Decays", NASA, July 2018 (2018) <<https://www.nasa.gov/ames/ocs/seminars/sir-roger-penrose>> [accessed 5 September 2020].

3. From certainty to probability

The original Teleological argument was based on biblical scripture with all of creation being made by God. The later modifications to this theory to incorporate evolution and fine-tuning move away from certainty to probability, an example being the precise positioning of the Earth from the sun. To our current knowledge, we know of only one planet, Earth, which has produced intelligent life. In mathematics, a broad range of events need to be studied to understand the probability of any outcome, and with only one example of intelligent life being available for study, a probability analysis based on a dataset of one is insufficient.²⁷

4. Was the Universe created for human beings?

‘And God said, Let us make man in our image, after our likeness: and let them have dominion over the fish of the sea, and over the fowl of the air, and over the cattle, and over all the earth, and over every creeping thing that creepeth upon the earth’ and ‘For God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life.’²⁸

The age of the current universe has been calculated at thirteen point eight billion years, the age of planet Earth is estimated at four point five billion years and during this time, the human species has existed for just one hundred and fifty thousand years. To create an environment suitable for human life on one planet has required cosmic events to take place on a truly vast scale, stars have had to form and then been destroyed to create the heavier atomic elements that are required for the building blocks for life.²⁹ Over the three point five billions years of evolution that has produced homo-sapiens, there has been five mass extinction events and the death of more than ninety nine percent of all organisms that have ever lived on Earth.³⁰

²⁷ Del Ratzsch and Jeffrey Koperski, ‘Teleological Arguments For God’s Existence’, *The Stanford Encyclopedia Of Philosophy*, Summer 2020 (2020) <<https://plato.stanford.edu/entries/teleological-arguments/#AnaDesArgSch1>> [Accessed 15 June 2020].

²⁸ Genesis 1:26 and John 3:16, *The Holy Bible*, Authorised King James Version (Edinburgh: Collins, 1991).

²⁹ Anna Frebel and Timothy C. Beers, “The Formation Of The Heaviest Elements”, *Physics Today*, (2018) <<https://physicstoday.scitation.org/doi/full/10.1063/PT.3.3815>> [accessed 20th September 2020].

³⁰ Michael Greshko, “What are mass extinctions, and what causes them?”, *National Geographic*, (2019) <<https://www.nationalgeographic.com/science/prehistoric-world/mass-extinction/#close>> [accessed 21 September 2020].

Some may point to these facts and draw the conclusion that this is the work of God. However, if it was God's desire to create humankind, an omniscient, omnipresent and omnipotent God would surely have found a simpler and more compassionate way to do so.³¹

5. If there is a designer, why the Abrahamic God?

From the core of Aquinas' teaching, through the latter adaptations, the argument for Intelligent Design remains prevalent in theist philosophy. However, all the attributes of a designer proposed by this hypothesis could also be met by a non-Abrahamic god, multiple gods or other forms of superior intelligence.

Conclusion:

Question; The Teleological argument identifies a design and purpose in the material universe and further, that the cause of this is God. Is it justified in making either of these claims?

The Teleological Argument in its basic form, is fundamentally one of belief. The theory of evolution as presented by Darwin has been subject to intense peer review over the past one hundred and sixty years, and been found to be a robust theory. Its conclusions present significant difficulties to theists when proposing a model of the universe that was created purely by God. Likewise, the concept that certain organs contain irreducible complexity also faces difficulties as developments in evolutionary biology brings answers to these questions.

The fine-tuning argument however, is a far more robust proposition. It is not based on belief, but on the solid science that certain critical universal laws of nature have been set at very precise values that have allowed intelligent life to exist. These scientific facts are, to the most part, not challenged. The main questions then becomes one of how and what; how did these values come to be and what is mechanisms by which they were set. The Teleological Argument draws the conclusion that this is God.

In the absence of solid alternatives, proponents of this position can be justified when using this argument. However, this may be the last of the gaps in which God can reside, especially in the face of other religious beliefs and the constant progress of science.

³¹ Christopher Hitchens, *A Portable Atheist* (Philadelphia: Da Capo Press, 2007), p. xix.

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ⁱ 'Look round the world: contemplate the whole and every part of it: You will find it to be nothing but one great machine, subdivided into an infinite number of lesser machines, which again admit of subdivisions to a degree beyond what human senses and faculties can trace and explain. All these various machines, and even their most minute parts, are adjusted to each other with an accuracy which ravishes into admiration all men who have ever contemplated them.[...] the Author of Nature is somewhat similar to the mind of man, though possessed of much larger faculties, proportioned to the grandeur of the work which he has executed. By this argument a posteriori, and by this argument alone, do we prove at once the existence of a Deity, and his similarity to human mind and intelligence.'

David Hume, *Dialogues Concerning Natural Religion* (1779) <<http://www.gutenberg.org/cache/epub/4583/pg4583.txt>> [Accessed 4 June 2020], part 2.

ⁱⁱ 'Why do I believe this, given that I expounded and defended atheism for more than a half century? The short answer is this: this is the world picture, as I see it, that has emerged from modern science. Science spotlights three dimensions of nature that point to God. The first is the fact that nature obeys laws. The second is the dimension of life, of intelligently organized and purpose-driven beings, which arose from matter. The third is the very existence of nature.'

Antony Flew, *There Is A God; How The World's Most Notorious Atheist Changed His Mind* (London: HarperCollins, 2007), pp.88-89

ⁱⁱⁱ The Eight Possible Universe Configurations as Proposed in The Goldilocks Enigma;

- a) The Absurd Universe; There is no reason to the universe. It could be different, but it is as it is. There is no purpose, no designer, no God, no teleology, no destiny. Human beings are an accidental by-product of chance.
- b) The Unique Universe (otherwise known as the Anthropic Principle). Theories such as the Big Bang and Evolution, and the values of fundamental constants, are as they are because this universe happens to be conducive to life. Human beings can observe this universe only because such conditions have been met, if conditions had been different, then humans would not exist. There is no design or God, this current existence happened by chance.
- c) The Multiverse. This is an extension of number two and states human beings exist in a universe where they can exist. However, there are many, and possibly infinite, other combinations of causes and conditions that are not conducive with life. With infinite possibilities, there has to be a number of universes where life can exist and naturally humans are found there. Again, there is no design or God.
- d) Intelligent Design. There is a design to the universe and thus a designer (God) and human beings are part of that design. Whether this is the destination, or a way-point to another species, is unclear.
- e) The Life Principle. This option brings in the idea that there are laws to the universe and or the multiverse, the inherently favours life. These laws are as yet unknown, but discounting the idea of a designer and pure chance, and the fact that humans exist, implies such a law of nature may also exist.
- f) The Fake Universe. This proposes that our experience of the universe is false and in fact we are experiencing a virtual reality simulation. The clear question here is who or what is running the simulation.
- g) The Self Explaining Universe. The model introduces the idea of an infinite universe that is created and destroyed in endless cycles. This idea is common in eastern philosophy especially in Hindu, Buddhist and Taoist thinking. These eastern models also propose a form of universal consciousness that is conducive with creating universe that is bio-friendly and hence has the parameters conducive to life built into the model. This model has come to recent prominence via work done by Roger Penrose.
- h) None of the above.

Davies, *The Goldilocks Enigma*, pp. 295-303.

iv Turtles All The Way Down

A well-known scientist (some say it was Bertrand Russell) once gave a public lecture on astronomy. He described how the earth orbits around the sun and how the sun, in turn, orbits around the center of a vast collection of stars called our galaxy. At the end of the lecture, a little old lady at the back of the room got up and said: "What you have told us is rubbish. The world is really a flat plate supported on the back of a giant tortoise." The scientist gave a superior smile before replying, "What is the tortoise standing on." "You're very clever, young man, very clever," said the old lady. "But it's turtles all the way down!"

Stephen Hawking, *A Brief History Of Time* (London: Bantam Books, 1988) , p. 1.