

# Design in the Universe

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## I. Introduction

- A. Wonderment not reduced by science
- B. Thesis: *God does not need to do regular miracles to sustain the normal functioning of the natural world.*  
[But this does not mean God never does miracles for specific purposes.  
“order-of-nature miracles”  
“specific-point miracles”]

## II. Forms of Design Arguments

- 1. Biological structures
- 2. Origin of life
- 3. “Fitness of the environment”
- 4. Mind and personal agents
- 5. Fine-tuned laws of physics
- 6. Origin of the universe (problem of entropy)

## III. Fine-tuned Physics

- A. Thesis: *Were the basic physical constants slightly different than what they are, then nothing like intelligent life would have been possible.*
- B. Stephen Hawking Quote:  
"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."  
[*A Brief History of Time*, (Bantam Books, 1988) p. 125]
- C. How such an assessment is possible
  - 1. Hypothetical variations on known physics
  - 2. Note regarding "near" universes
- D. Conditions essential for the development of Life  
(not just life as we know it)
  - 1. Complexity of Structure
  - 2. Stability of Structure
  - 3. Stability of the Environment
  - 4. Mutability.
  - 5. Reproducibility
  - 6. Encoding.
  - 7. Accessibility of Constitutive Resources
  - 8. Long-Term Energy Source.
  - 9. Metabolic Pathways.
  - 10. Distribution and coordination systems
  - 11. Time

## E. Some examples:

- 1. Expansion Rate vs. Gravity

- 2. Isotropy/Homogeneity of Matter/Energy
- 3. Fine-tuned Inflation
- 4. The Cosmological Constant
- 5. Hydrogen to Helium Ratio
- 6. Helium, Beryllium, Carbon Resonance

## F. The "multiverse" explanation

- 1. There may be a vast (or infinite) number of big bangs (“universes”).
- 2. The physical constants may vary.
- 3. Any being contemplating its existence must be in a life-permitting universe

## IV. Response to the "Multiverse" Explanation

- A. Note: The Bible does not address whether God may have created more than our universe.
- B. Problems with the multiverse explanation
  - 1. Highly speculative
  - 2. Violation of Occam’s razor?
  - 3. Not directly testable
  - 4. A last-ditch explanation  
E.g. Hoyle and atomic resonances  
General Principle:  
*As probabilities for a given hypothesis decrease, alternatives rise relative to that hypothesis.*
  - 5. An infinite number does not guarantee any life-permitting universes.
  - 6. Fine-tuned “Theory of Everything”?

## V. Conclusion

*The delicate balance of physical constants does not force one to believe a designer/creator of the universe), but it is strong evidence.*

*The heavens still declare the glory of God.*

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