Handout 8: The Teleological Argument

I. Paley's Teleological Argument

A. The Watch Argument

1. A watch is found in the woods; it is amazingly intricate and useful (this is "the evidence").
2. This is highly improbable if there is no watchmaker.
3. This is not so improbable if there is a watchmaker (i.e., if "the watchmaker hypothesis" is true).
4. If E is much more likely given H than given the denial of H, then E strongly supports H.
5. Therefore, the evidence strongly supports the watchmaker hypothesis.

B. The Human Eye Argument

1. The Argument

1. The amazingly intricate and useful human eye exists.
2. This is highly improbable if there is no God.
3. This is not so improbable if there is a God.
4. If E is much more likely given H than given the denial of H, then E strongly supports H.
5. Therefore, the evidence strongly supports the God hypothesis.

2. Comments on the Human Eye Argument

a. Two ways in which this conclusion is less strong than the conclusion of the Ontological Argument:

   i. The most this argument establishes is the existence of God as an intelligent designer, not God as the greatest conceivable being (but still, no one who thinks of oneself as an atheist would happily accept the existence of God as an intelligent designer).

   ii. The conclusion is logically compatible with atheism.

b. Premises 1 and 4 are beyond question. 3 seems highly plausible.

3. The Problem with Paley's Human Eye Argument

Paley's Human Eye Argument is undermined by Darwin's Theory of Evolution, which shows that the existence of the human eye is not so improbable even if there is no God (i.e., it shows that Premise 2 is false).

II. The Fine-Tuning Argument

A. The Argument

1. The laws of physics are "fine-tuned" to allow for the possibility of life, for example:

- o It has been calculated that if the gravitational constant differed by more than $1/10^{40}$ of its present value, stars would either be too hot or too cool to support life.
- o If the electromagnetic force were slightly stronger or weaker, complex molecules (of the sort involved in living things) could not form.
- o If the 'density parameter' of the universe differed by more than $1/10^{60}$, then the universe either would have expanded too quickly to form galaxies, or would have recollapsed before intelligent life evolved.

2. This is highly improbable if there is no God.

[The alternative explanation – the "chance hypothesis" – makes fine-tuning highly unlikely, as the fine-tuning numbers show.]

3. This is not so improbable if there is a God.

[If the universe was designed by an intelligent designer who selected its laws, constants, and initial conditions, it wouldn't be that surprising if the designer chose to fine-tune these parameters so that the universe could house rational beings, like him.]

4. If E is much more likely given H than given the denial of H, then E strongly supports H.

5. Therefore, the evidence strongly supports the God hypothesis.

B. Probabilistic Version

G = God exists
N = naturalism
F = the fact that the laws of nature are fine-tuned to allow for life
Assume: P(G or N) = 1.
              P(G) is not infinitesimal.
              P(F|G) is not infinitesimal.
              P(F|N) is infinitesimal.

To determine P(G|F):

$$P(G|F) \; = \; \frac{P(G) \times P(F|G)}{P(G) \times P(F|G) \; + \; P(N) \times P(F|N)} \; = \; \frac{medium\!-\!size \;\; number}{same \;\; number \; + \; infinitesimal \;\; number} \; \approx \; 1$$

In other words: given that the universe is fine-tuned (as it appears to be), it is almost totally certain that God exists.

C. Objections to the Fine-Tuning Argument

1. The Chance Hypothesis

"The constants in the laws of nature had to take some value, and any particular set of values they might have taken is just as unlikely as any other set.

Compare: when flipping a coin, getting heads 100 times in a row is just as likely as getting *this* particular sequence: HTHHTTHTHTTHH HTHHHHHHTHTHHHHTTTHTHHTTHHTTHTHTTHHTTHHTHH THTTTTHTHTTHHHTTHTHTHHHHTTTHTHHTTHHTTHTH … ."

Reply: The Rocks on the Beach; The Deck of Cards.

2. An Anthropic Objection

"It isn't surprising that we find the universe 'fine-tuned' for life, since if it weren't, we wouldn't be here to talk about it."

Reply: The Firing Squad; The Plane Crash; Van Inwagen's Straw Drawings.

3. The Multiple Universes Hypothesis

"Maybe our universe is just one of very many universes, each differing randomly in its physical constants and initial conditions. On this hypothesis, it is to be expected that some of these universes will be fine-tuned for life. The vast majority that aren't fine-tuned don't have anyone there to observe that fact. Of course we would be in one of the ones that is fine-tuned — that shouldn't surprise us.

Alternatively: perhaps the physical constants change in different cycles of the universe."

Reply: The Multiple Coins Hypothesis; The Inverse Gambler's Fallacy; The Shot in the Dark.

4. Other Forms of Life

"The argument assumes that life would have to be roughly like us. But maybe there could have been other possible kinds of life, life that could have arisen even in universes with laws and conditions we have a hard time imagining."

Reply: The Fly on the Wall.

5. Axiarchism*

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* Parts of this handout derive from a handout by Mike Huemer on the same topic.