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**Bullets, Bugs, and Bears:  
Anthropomorphism, Anthropocentrism,  
and the Anthropic Principle**

I.

I begin with a story. A cowhand was showing a visitor around a dude ranch, when they came to an old barn. One wall of the barn was covered by hand-drawn targets, a bullet hole centered in every bull's-eye. "This is where the boss shoots his pistol," remarked the hand.

"He must be a wonderful marksman!" the visitor exclaimed.

"Not really," scoffed the guide. "He always shoots first, and then draws the targets around the holes." A silly tale, but instructive.

The barn wall seems to show purposiveness; but in fact there is none. Aiming at a target and hitting it shows purposiveness, because a goal (hitting the bull's-eye) is selected in advance, and a means (skillfully aiming the gun) is required to achieve it. But no spot on the wall was aimed at; the place where the bullet hit had no significance until *after* the shot was fired. Any spot would do, wherever it was. The bullet holes therefore give no evidence of intelligence at work. For all we can tell from the positions of the holes, a mindless machine could have pointed the gun at random.

The classical argument from design, as presented most famously by William Paley (1802), contrasts a stone with a watch. A stone indicates no intelligent design, because its form is not adapted to any particular function: any stone would do. There is no sign that intelligence was employed to produce the stone, because there is no indication that an objective was selected and then sought after.

A watch, on the other hand, does exhibit intelligent design, because it shows adaptation of form to function: the form of the watch—the composition, shape, and arrangement of its parts—is a rationally chosen means to achieve its function—telling time. And, the argument says, so also do living organisms exhibit adaptation: the teeth of cows and wolves serve their needs in chewing different foods, and so on. Here there is a recognizable objective: the survival of the organism; and its parts, like teeth, can be seen as rationally chosen means to achieve that objective.

It is apparent now that a teleological argument must be anthropomorphic. That is, it can only give evidence of a mind at work if the objective is recognizable to us as a goal, that is, something that we can understand as rationally being sought. Mere complexity is not evidence of intelligent design; snowflakes are so complex that no two are alike. But snowflakes are not plausible as a basis for a teleological argument; their complexity would not in itself make sense as an objective. A purely inanimate process could have produced all their intricate beauty.

Paley saw that an ordinary stone cannot be used as an example of design. There is no reason to say someone must have made a deliberate effort to produce a stone with, say, exactly eleven rough points, three deep impressions and five shallow ones. There is no reason why anyone would want this stone rather than any other. By contrast, a stone shaped into a spear point would be evidence of design, because it would be an identifiable objective. Intelligent design is only suggested where we could recognize the result as a rational goal to be attained. So teleological arguments must be anthropomorphic, in that they must show an objective which is intelligible to us as an objective.

A similar point can be seen in the story of the millennium computer bug, overblown though it was. The problem began when computer memory was costly; to save space programmers used two-digit dates to indicate years in the twentieth century. But as the next century approached, programs read dates incorrectly: 00 as 1900, rather than 2000, for example. The goal of the programmers to save memory is understandable; but we but cannot see misreading the dates as a goal in itself. The misreading was, rather, an unintended consequence.

## II.

The Anthropic Principle Design Argument (APDA) is a recent version of the teleological argument. It points not to adaptations of particular organisms, but to fundamental features of the universe itself. It maintains that many fundamental laws and constants in the universe must be *almost exactly* as they are for human life to exist. Indeed, the argument runs, the universe must have been fine tuned for the purpose of producing us. According to the APDA, scientific calculations prove that many fundamental characteristics of the universe must be almost precisely as they are in this universe, in order for life to exist. Such a happily precise combination of natural laws is far too improbable to have occurred by blind chance, so there must have been a conscious designer behind it: *someone* who planned a universe fit for life.

For example, Paul Davies (1992) says, “[There is] impressive evidence that life as we know it depends very sensitively on the form of the laws of physics, and on some seemingly fortuitous accidents in the actual values that nature has chosen for various particle masses, force strengths, and so on” (199).<sup>1</sup>

William Lane Craig (1995) says, “. . . it is unimaginably more probable that the universe should be life-prohibiting rather than life-permitting, and the best explanation for the cosmos as it is may well be intelligent design” (268).

Robert M. Augros and George N. Stanciu (1984) state the argument this way:

The properties of matter . . . on the smallest scale and on the scale of the whole universe appear uniquely suited to life. . . . Life is not accidental. . . . Though man is not at the physical center of the universe, he appears to be at the center of its purpose. . . . Hence, the New Story [of science] again leads to a mind that directs the whole

universe, all the laws of nature and all the properties of matter, to a goal. To that mind we give the name God. (69-70.)

Thus, the argument takes the following form:

- (1) If certain fundamental values of the universe were different in any one small respect, then life would be impossible.
- (2) It is *very* improbable that precisely *these* values should have occurred by pure chance.

And so the APDA concludes:

- (3) The universe is (*very* probably) the product of intelligent design.

To summarize, the APDA says we can infer that the universe was (probably) intelligently designed to produce life, because its basic facts are too improbable to have come about by chance. The reason for concluding that they are so improbable is that any slight deviation from the actual values would have produced a universe that could not support life.

This new design argument has received some popular acclaim, as well as discussion in the philosophical literature. But, I will try to show, its promise is as illusory as those of previous design arguments.

We are in a position now to see why the APDA does not succeed; its appearance of plausibility comes from illegitimately conflating anthropomorphism and anthropocentrism. The structure of the traditional design argument is that means are discerned to achieve an objective: the teeth, etc. of the organism contribute to its survival. The occurrence of the means is said to be improbable without intentional design, and so a Designer is inferred. Here the objective, survival, has an obvious value: our own survival is a major objective for us. And the usefulness of the teeth for promoting that objective is also obvious: mammals need appropriate teeth to chew their food. Since both the desirability of the goal and the rationality of the means of achieving it are not in dispute, they are usually ignored; the emphasis is mostly on the improbability of the means. This is why the traditional argument was so vulnerable to the discovery of evolution, which shows a naturalistic, non-intentional, explanation of how those adaptive means came about.

But the APDA is different. The APDA claims to discern purpose in the *whole universe*; therefore purposiveness must be characteristic of the universe as a whole. And here there is no obviously desirable objective being achieved, nor any obviously rational means of achieving it.

Now we meet the bears! Stewart Guthrie's book *Faces in The Clouds* (1993) argues that anthropomorphism and anthropocentrism in human thinking are evolved cognitive strategies, selected for their survival value.<sup>2</sup> Guthrie illustrates the point: it is better to mistake boulders for bears than to mistake bears for boulders! If we mistake boulders for bears (anyone who has hiked in bear country has done this) we

may be alarmed unnecessarily. But if we mistake bears for boulders, they may have us for lunch. Thus, Guthrie argues, interpreting our experience in anthropomorphic and anthropocentric terms has survival value.

### III.

As we have seen, the APDA is aimed at the universe as a whole. Therefore, any objective the argument identifies must be one for which the whole universe is designed. So, for there to be reason for saying the universe was deliberately designed, the universe must show a form that could be rationally chosen to achieve such an objective.

And when we look at the universe, what does it really produce? The universe is nearly all hydrogen and helium. As Donald Olson (2000), Southwest Texas State University physicist and astronomer puts it, "The universe is three-quarters hydrogen and one-quarter helium, plus *traces* of everything else" (emphasis added).

But a universe consisting *almost entirely* of hydrogen and helium is not an intelligible objective—we could not love it for itself. Why would any purposive mind wish to create a universe that is 75% hydrogen and 25% helium, and not, say, 50-50? Or 10% hydrogen and 90% helium? Or an equal mix of all the natural elements? Or, perhaps most relevantly, why would a designing mind not prefer a mix favoring the elements which make up life forms? There is no reason to say that the precise composition of *this particular* universe shows designing intelligence, since there is no reason any designer would desire this universe over another. Saying it must be deliberately designed would be drawing targets around bulletholes, claiming that *whatever* happened was consciously intended, even though it could not be identified independently as a rationally desirable goal. In fact, the universe as a whole does not fulfill the requirement of tending toward a recognizable goal. Thus, there is no support, *on the basis of observation*, for a design argument that the universe was deliberately planned.

At the same time, the APDA assumes that the objective of the universe is to produce human life. But does anything about the universe give evidence of being planned for the purpose of producing of human life? Human life occurs only on and near the surface of our planet, and has existed for no more than one two-thousandth of history of the planet, which is perhaps one-fourth as old as the universe itself. Humans and all their works constitute only an immeasurably tiny fraction even of the "traces of everything else" the universe contains. The point is clear: observation of the universe gives no support for any notion that it was designed to produce human life.

And yet the proponents of the APDA suppose that the infinitesimal *human* bit of the universe is its ultimate purpose. Why? The reason can only be the anthropocentric mind set described by Guthrie—the deeply imbued tendency to interpret all of reality as centered around ourselves. Guthrie has shown that this

tendency has survival value; but it can also lead us astray. It may be better to mistake boulders for bears than bears for boulders, but it is still a mistake. Boulders are not bears, and it is better to know it. Likewise, it is better to know that we are not the center of the universe, in purpose any more than in space. The APDA is based on unfounded assumptions.

A couple of objections are easily disposed of. One might be that the particular design of this universe really *is* necessary to produce human life. On this line of thought, producing humanity would be like refining uranium, where prodigious quantities of ore must be processed to produce a tiny amount of the product. But the only reason such an inefficient process could be "necessary" would be if it were required by physical laws, as in uranium production. And the original claim of the APDA is precisely that the laws of the universe are *well* designed to produce human life—so well designed, in fact, that they demonstrate an *intention* to produce it. It would be inconsistent to claim now that those same laws make human life extremely *difficult* to produce. A designer creating laws for the purpose of producing humanity could create laws more successful at doing so. Again, we have no basis in observation of the universe to conclude that intelligence was at work.

A second objection might be that we cannot know the mind of the Creator. He might have purposes beyond our ken, which would make it rational for him to move in such apparently mysterious ways as producing only this tiny mote of humanity in all the cosmic vastness. But this reasoning would nullify the teleological argument itself, since the initial premise of the whole Anthropic Principle Design Argument was that we *can* discern the purposes that are at work. Only the claim that purpose is observable allows the inference to a rational creating mind at all. To say now that the purposes are *unrecognizable* would be to cut the ground from under the whole enterprise.

Therefore, no argument for designing intelligence can be based on the fundamental laws and constants of the universe. The APDA fails on two counts to meet the criteria of legitimate teleological reasoning. First, there is no objective which the universe can be observed to achieve that is comprehensible as a goal. A universe of hydrogen and helium is not itself identifiable as an objective for a rational mind. Therefore, there is no evidence of a mind behind it in the first place; inferring a purpose here would be as baseless as inferring a purpose from the millennium bug.

And second, the objective the APDA says the universe seeks to achieve, human life; is not effectively produced. Life is no more than an impurity in the sea of hydrogen and helium. A rational mind designing laws for a universe with the purpose of bringing humanity into existence could achieve that result both more effectively and more efficiently. In other words, what the universe does produce effectively is not a rationally recognizable goal; and the universe does not effectively produce the rationally recognizable goal it is said to be designed for.

As we have seen, any teleological argument must ascribe an *anthropomorphic* objective to the creating mind; this is the basis for supposing there *is* a creating mind.

Without such a goal, claiming there was a conscious creator would be like drawing targets around existing bullet holes. And the APDA requires in addition that the objective be the production of humanity. However, observing the universe, there is no recognizable goal toward which it tends; so there is no support for the conclusion that it was designed at all. Still less is there reason to think it was designed for the purpose of creating *us*. As interested as we humans may be in ourselves, it is a pathetic sophistry to project that narcissism onto the cosmos. And so, like its predecessors, the Anthropic Principle Design Argument fails to give evidence of a designing creator.

#### Notes

1. Davies, however, does not make so confident claims as some others about establishing a Designer.
2. Wide research and documentation make this work valuable, even if one supposes its conclusion claims a bit more than is justified.

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