

Ie – Evaluating “Proofs” of God’s Existence

Dear: Reading this chapter will be waste of your time! Yet, I don’t recommend that you take the obvious next step – solely, of course, to avoid wasting your time! Let me put it this way: you have already wasted an enormous amount of your time on “the god idea” (e.g., attending church); if you now “waste” a little more of your time on this chapter, then you’ll be less likely to waste still more of your precious time on “the god idea”.

What I want to try to show you in this chapter is that all available “proofs” of the “existence” of “God” are illogical. Many other people have reached the same conclusion. For example, in Chapter XXXI entitled “The Philosophy of Logical Analysis” of his 1945 book *A History of Western Philosophy*, Bertrand Russell summarized his conclusion this way:

... ever since Plato most philosophers have considered it part of their business to produce “proofs” of immortality and the existence of God. They have found fault with the proofs of their predecessors – Saint Thomas rejected Saint Anselm’s proofs, and Kant rejected Descartes’ – but they have supplied new ones of their own. In order to make their proofs seem valid, they have had to falsify logic, to make mathematics mystical, and to pretend that deep-seated prejudices were heaven-sent intuitions.

At first thought, you may think that seeing that all such proofs are illogical would not be a complete waste of your time, but, Dear, I assure you that it is! In later chapters (especially in **R**, dealing with “Reason”, and in **T**, dealing with “Truth”), I’ll show you that all “proofs” (using deductive logic) of the “existence” of anything are ridiculous: at best, deductive logic is capable of demonstrating only which conclusions are consistent with their associated premisses. Further, all statements of existence of anything are, at best, just hypotheses (which, to be useful, must pass a series of tests such as those I showed you in the previous chapter). Thus, all logical “proofs” of the existence of God contain the premiss that God exists (i.e., contain the alleged conclusion as a premiss!), and such a premiss can never be proved as “true” – only investigated as a hypothesis.

Let me say the same thing a different way. Later in the book, I’ll try to show you the futility of attempting to prove the existence of anything. At most, the idea of the existence of anything is a hypothesis. Thereby, “ontology” (the theory of existence) is a waste of time; the study of existence should be

a part of “phenomenology”: if you want to know if something exists, then kick it (or similar), and proceed with an appropriate hypothesis. In addition, later in this book I’ll try to show you that it’s impossible for deductive logic to generate new information: at most, deductive logic permits the manipulation of available knowledge (contained in the premisses) into different forms (called “conclusions”). Therefore, trying to generate any new information (e.g., about some god) is totally futile: at best, all that can be done “logically” is manipulate existing knowledge (or lack thereof, contained in the premisses) into different forms.

So, you might ask, why not go directly to a demonstration that no new information can be generated by deductive logic? If you did ask that question, I’d respond that there are two reasons. One is that such a demonstration becomes rather involved (as you’ll see in **R**); further, if in this chapter I’m able to show you that all available “proofs” of the “existence” of “God” are silly, then maybe you’ll more easily see why all such “existence proofs” are silly. And a second reason is the following.

Throughout recorded history, enormous mental energy has been invested by some amazingly brilliant people (from Aristotle through to Descartes and Kant) “proving” the “existence” of “God” (as well as a fair amount of mental energy expended by lesser minds, such as that of Pope John Paul II), and it certainly wouldn’t hurt you (and could help you) to see the silly mistakes made by such people. Besides, someday some “apologist” for “the god idea” may question you with something similar to “What about the cosmological and the teleological proofs of God’s existence?”, and you might be pleased to be able to knowledgably respond “Oh, those; they’re as silly as the ontological and chronological proofs – mere babblings of confused minds.”

So, Dear, let me start going through some of the available “logical proofs of God’s existence”. Note that, already, the claim of such a “proof” is quite brazen, given that (as I showed you in the previous chapter):

- The “god idea” summarizes no direct data, the hearsay evidence is unreliable, and as a summary of the circumstantial evidence for any god’s existence, the god “hypothesis” isn’t succinct – it’s easily eliminated with Ockham’s razor;

- As described in the myths of various “holy books”, the “god idea” conflicts with a huge number of established scientific principles, including those that form the basis of logic;
- The “god hypothesis” provided no predictions that can be reasonably tested; and
- Those few predictions (or “prophecies”) that follow from “the god idea” (or that were promoted by advocates of “the god idea”) and that are sufficiently precise to permit reasonable tests have been found to be false.

But be that as it is, let me begin to address the logic (or better, illogic) in “proofs” of the “existence” of “God.”

When considering the logical basis of any concept, it’s almost impossible not to rely on the ideas of the founder of the study of logic, i.e., Aristotle. In fact, if one examines how much he advanced the knowledge of his time, one could comfortably argue that he was the most intelligent human who has ever lived. Yet, as I’ll now start to illustrate, he also made some colossal errors – including colossal errors in logic.

I think it’s important to show you some of Aristotle’s errors, Dear, because now, approximately 2300 years later, these errors have caused humanity enormous harm. In part, the harm was to those who accepted (and still accept) his erroneous “proof of the existence of God” as valid (or accepted essentially identical “proofs”, subsequently proposed, such as those by “Saint” Thomas Aquinas, about 800 years ago – and who, as I’ll show you in this chapter, manipulated Aristotle’s works into forms more palatable for Medieval mystics). There is also substantial harm to those who saw (and who now see) the fallacy in Aristotle’s “proof”: in the past, the clerics tortured and murdered such “heretics”; similar still occurs in Muslim countries; in this country, at least we’re just “marginalized”, as is illustrated by the first President Bush’s treasonous/traitorous statement: “No, I don’t know that atheists should be considered as citizens, nor should they be considered as patriots. This is one nation under God.”

Nonetheless – and again – the breadth of Aristotle’s knowledge (for his time) was awesome: all of philosophy (including logic, which he essentially invented), all of physics and biology (which he essentially started), much of many other “natural sciences” (including medicine, geology, meteorology,

and astronomy), as well as knowledge in essentially all other subjects (including mathematics, arts and letters, history, and theology).

Consistently, the first sentence of his book entitled *Metaphysics* is: “All men by nature desire to know...”

Yet, it’s clear that somewhere in his analysis he took at least one wrong turn, because near the end of his *Metaphysics* (in Book or Chapter XII, Part 7) he reached the following ridiculous conclusion [in which I’ve added notes in “square brackets” such as these]:

[The] final cause is (i) some being for whose good an action is done, and (ii) something at which the action aims... But since there is something which moves (while itself unmoved) existing actually [for otherwise how did things first start moving?], this can in no way be otherwise than as it is. The first mover, then [that is, according to Aristotle, God] exists of necessity; and in so far as it [God] exists by necessity, its mode of being is good, and it is in this sense a first principle.

On such a principle, then, depend the heavens and the world of nature... If, then, God is always in that good state in which we sometimes are, this compels our wonder; and if in a better, this compels [our wonder] yet more. And God is in a better state. And life also belongs to God; for the actuality of thought is life, and God is that actuality; and God's self-dependent actuality is life most good and eternal. We say therefore that God is a living being, eternal, most good, so that life and duration continuous and eternal belong to God; for this is God...

The nature of the divine thought [i.e., God’s thought] involves certain problems [I assume for Aristotle, not for God!]; for while thought is held to be the most divine of things observed by us [at least, according to Aristotle!], the question how [God] must be situated in order to have that character involves difficulties. For if [God] thinks of nothing, what is there here of dignity? It is just like one who sleeps. And if [God] thinks, but this depends on something else, then... [God] cannot be the best substance; for it is through thinking that [God’s] value belongs to [God]. Further, whether [God’s] substance is the faculty of thought or the act of thinking, what does God think of? Either of [himself] or of something else; and if of something else, either of the same thing always or of something different. Does it matter, then, or not, whether God thinks of the good or of any chance thing? Are there not some things about which it is incredible that God should think?

Evidently, then, [God] thinks of that which is most divine and precious, and [God] does not change; for change would be change for the worse, and this would be already a movement. First, then, if ‘thought’ is not the act of thinking but a potency, it would be reasonable to suppose that the continuity of [God’s] thinking is wearisome to [God]. Secondly, there would evidently be something else more precious than thought, viz., that which is thought of. For both thinking and the act of thought will belong even to one who thinks of the worst thing in the world, so that if

* Go to other chapters *via*

this ought to be avoided (and it ought, for there are even some things which it is better not to see than to see), the act of thinking cannot be the best of things. Therefore it must be of [Him]self that the divine [thought] thinks (since it is the most excellent of things), and [God’s] thinking is a thinking on thinking.

In summary, Dear, in Aristotle’s major work, in which he set himself the objective “to know”, he concluded that the “first cause” of the universe was “God”, who after first setting this universe in motion, spends the rest of eternity in the sole activity of thinking about himself – or in the modern vernacular: he spends eternity contemplating his navel (or her navel, as the case may be)! The option that God stays involved in the affairs of the world is loaded with deductions that theists find disconcerting: if God is the “first cause” of everything, then God is also the ultimate cause of all evil; but to be the cause of evil is evil incarnate; therefore, God is evil.

To find how Aristotle reached his ridiculous conclusion that God is “the first cause”, it’s necessary to plow through two of his books, both *Physics* (which is the Greek word for ‘Nature’) and *Metaphysics* (i.e., “After Physics”), line by line. Thereby, his many assumptions that rest on zero data (or faulty data) or that weren’t tested (and some that can’t be tested) become apparent (as I’ll show you below). There’s also a host of surprising things (when found in anything written by Aristotle): poorly defined words. Now, of course I don’t plan to show you all the details supporting those assessments, but please bear with me while I show you some of his errors. As I already mentioned, I think it’s important for you to see his errors, Dear, because their consequences have persisted for more than 2300 years – resulting in the indoctrination of certain grandchildren with erroneous ideas.

Aristotle starts his *Physics* on solid foundation:

[We] do not think that we know a thing until we are acquainted with its primary conditions or first principles...

But then he demonstrates his lack of knowledge about physics (i.e., about Nature), by introducing the following unjustified assumption (Bk I, Pt 5):

First principles must not be derived from one another nor from anything else, while everything has to be derived from them.

To suggest that any “first principles” (e.g., $A \equiv A$ and $A \neq \neg A$) must not be derived from “anything else” (e.g., from data and from experiments) is not only terribly wrong it’s totally bizarre! Are “first principles” supposed to

fall out of the sky? Are they buried deep in the ground? Are they in the depths of the ocean? Once again, Dear: first principles (such as $A \equiv A$ and $A \neq \neg A$, and others that I’ll show you in later chapters) must be derived from data. They must be hypotheses that succinctly summarize a substantial quantity of data, that have predictive capabilities, and whose predictions have been experimentally found to be correct so many times that people (and even monkeys and other animals) have basically given up trying to show that these “principles” are wrong.

In fact, Dear, this suggestion by Aristotle, that “first principles must not be derived from one another nor from anything else” is not only terribly wrong and totally bizarre, it’s exceedingly dangerous. If we’re not to derive first principles from data and experiments, then what? Are we to be indoctrinated with them, when we are children, before we gain sufficient experience for ourselves? Indoctrinated by “those who know better”, e.g., those who were also brainwashed with these same “first principles” (such as “God exists”) when they were children? Dear: if anyone ever proposes to you a “first principle” that you can’t derive from your own data, then please tell who ever it is (including me) to “blow it out your ear”!

In his book *Physics*, Aristotle then immediately states (Bk I, Pt 5):

Our first presupposition [i.e., our first principle] must be that in nature nothing acts on, or is acted on by, any other thing at random...

Now, I won’t immediately charge that this “first principle” is wrong, but I’ll certainly argue that it’s a highly *undesirable* “first principle” to adopt, because it entirely depends on what one means by ‘random’ – which is a complicated concept. One can agree with Aristotle that, for example, when one flips a coin, there’s nothing random about whether it will land heads or tails, and when one throws a pair of dice, the outcome of the throw is perfectly determined – in both cases determined by the *exact* initial conditions and by the *exact* details of the throws. But since such exact details aren’t normally specified, then normally we say that the outcome of tossing a coin or throwing dice is “random”.

To see more clearly the error Aristotle made adopting this “nonrandomness” as a first principle, Dear, imagine that a tornado hit your neighbor’s house and killed your best friend. Aristotle is correct in stating that the result is “nonrandom”, but this assessment has no value, in that it has no predictive

capabilities: the tornado killed your friend, because the particular cloud in the hurricane, which generated the tornado, was situated exactly as it was; in turn, the hurricane passed so close to where you live, because of the particular distributions of winds and ocean-temperature patterns; further, the hurricane was spawned in the particular location over the ocean, because an atmospheric wave from Africa propagated exactly as it did; this wave started out in a particular way and in a particular location in Africa, because a particular eddy spun out of a particular valley; the particular eddy started, because a grasshopper leaped in a particular direction; and the grasshopper leaped as it did, when it did, because... and so on, truly as an infinite regress, until one returns to exactly how the Big Bang started this universe as it did!

Thus, data and experiments support Aristotle’s statement that: “in nature nothing acts on, or is acted on by, any other thing at random...” – in the sense that all events are linked causally. But this principle totally misses essential points: *1) the initial cause may not be the dominant cause and may even be essentially irrelevant, 2) to be able to predict the outcome, it’s most important to understand not the original cause but the dominant cause, and 3) the total causal chain may be so complicated that for all practical purposes, it’s wise to treat some links in the casual chain as random.*

And it may be worthwhile to add, Dear, that adoption of the principle “that in nature nothing acts on, or is acted on by, any other thing at random”, causes all religious people a great many problems. It means, for example, that your friend was killed by a tornado, or a loaded school bus crashed and killed all onboard, etc., for a reason. It then follows (from “all people desire to know”) that religious people seek to know the “purpose” of such outcomes: perhaps, somehow or other, their god has been offended. Such “reasoning” seems to be how the crazy idea of “sin” was concocted: people decided that something they had done had offended the gods! In olden days, in attempt to placate the god’s for the people’s “sins”, various sacrifices were made to the gods. Nowadays, this custom has evolved into just making another “donation” to the church – and of course, what the gods don’t use, the clerics still manage to consume, while commonly “reassuring” the donator with platitudes such as: “God works in mysterious ways.” (In contrast to the clerics’ ways, which are totally obvious!)

Better by far would be to say something similar to: “Yes, undoubtedly there are causal chains that led to that tornado hitting that house and led to that

* Go to other chapters *via*

school bus crashing and killing all those kids, but don't look to God for the reason and don't neglect randomness, whereby the outcome depends on details that are too intricate ever to use as predictive tools. That the cloud from which the tornado emerged happened to be there at that time was an example of such randomness, but there was nothing random about the fact that the family never built a shelter to protect them from tornados. And that the truck, which hit the bus, would have missed it if the truck driver hadn't stopped for a cup of coffee a half hour earlier is reasonable, but truck drivers do need to take breaks, and rather than consider that, let's inspect the brakes on all our other buses!”

And actually, by accepting Aristotle's nonrandomness principle, religious people get themselves in even worse problems. If one dismisses randomness (i.e., if one clings to the concept, unsupported by data, that everything can be known with certainty) and if one claims the capability (unsupported by data) that all causal links can be traced back to “the beginning” (to an “initial” or “primary” cause), then everything that happens is “preordained”. That is, in HIS infinite wisdom, God set this whole thing going, and whatever you do or whatever is done to you is all part of HIS “plan”, i.e., you're just a tiny cog in HIS huge machine. Stated differently, although humans may think otherwise, they actually have no free will, they're slaves of the Big Boss in Heaven – a concept to which I say to all clerics of the world: “Blow it out your ear – you and Aristotle are wrong: there is randomness, there is uncertainty, and I can and will make choices!”

But I'll get to more of that in later chapters (e.g., in U, dealing with Uncertainties). Now, let me turn to another of Aristotle's many errors (or unwise assumptions), this one from his *Physics* (Bk II, Pt 3):

Knowledge is the object of our inquiry, and men do not think they know a thing till they have grasped the “why” of [it] (which is to grasp its primary cause).

That's a huge mistake, but before I comment on it, let me show you, from elsewhere in his *Physics* (and elsewhere), exactly what he means by ‘why’. Thus, in *Physics* (Bk II, Pt 8) he writes:

If purpose, then, is inherent in art, so is it in Nature also.

In the same location he also states:

We must explain, then, that Nature belongs to the class of causes which act for the sake of something...

And in his book *Politics* (Bk I, Pt 2), he states:

Nature does nothing uselessly.

That is, Dear, when Aristotle wrote that “[humans] do not think that they know a thing till they have grasped the ‘why’ of [it]”, he means that to know something is to understand its purpose – which is sheer stupidity!

Dear, please stop to consider his famous line: “Nature does nothing uselessly.” Do you agree? Do you think it’s ‘useful’ that a tornado hit your friend’s house? Do you think it’s ‘useful’ that a recent avalanche killed 1,000 people? Do you think that TB, cancer, and all the other diseases are ‘useful’? Do you think it would be ‘useful’ if an asteroid crashed into the Earth, killing all humans? Or do you think that ‘usefulness’ is a human concept, and that nonliving parts of Nature don’t have the foggiest idea what ‘usefulness’ is!

This error by Aristotle is enormous – an error that has reverberated through the halls of all religious institutions for thousands of years. In fact, this same error has been at the basis of all religious “thought”, ever since the first primitive human wondered “why” the thunder god, mountain god, or whatever god was angry. Of course it’s obvious that life has a purpose – to continue living. But, Dear, please consider if there is even the smallest crumb of data that supports the speculation that the rest of nature “does nothing uselessly”. Seriously, Dear, what’s “the purpose” of a rock? What’s “the purpose” of the moon? Does any sane human seriously entertain the idea that “the purpose” of the Sun is to provide light for life on Earth? Surely the opposite is obvious: that life developed on Earth because there was light from the Sun.

Dear, please consider both the source and the seriousness of Aristotle’s error. The source of the error is “to anthropologize” Nature, i.e., to view the rest of Nature as if it possessed human characteristics. Thus, Dear, the concepts of ‘usefulness’ or ‘purpose’ or ‘value’ or similar are associated with life, in general, and humans, in particular. For example, all forms of life have the obvious purpose: to continue living. But Aristotle’s proposal that the nonliving (or the ‘inanimate’) part of Nature has “a purpose” (or has purposes) is unsubstantiated by data. Therefore, expect that he will make

* Go to other chapters *via*

serious errors in trying to understand Nature – given that he starts out with the totally unjustified assumption that “Nature... [acts] for the sake of something” or “Nature does nothing uselessly.” This is exactly the error that’s adopted by all religious people: to assume that “the purpose” of the universe is “God’s divine will”, although nobody, but absolutely nobody, has the faintest idea what God’s “will” is – all contrary claims by all clerics notwithstanding.¹

One can see how Aristotle then drifts off into even more unjustified assumptions, as he seeks to understand Nature’s postulated “purpose”. Thus, in his *Physics* (Bk II, Pt 6) he writes:

[Since] nothing which is incidental is prior to what is *per se*, it is clear that no incidental cause can be prior to a cause *per se*. Spontaneity and chance, therefore, are posterior [viz., after the fact] to intelligence and nature. Hence, however true it may be that the heavens are due to spontaneity, it will still be true that intelligence and nature will be prior causes of this All [i.e., the universe] and of many things in it besides.

More succinctly, what he’s saying is that the Universe has what religious people call “an intelligent design” – although absolutely zero data support such an assumption.

Then, after devoting most of the rest of his *Physics* to describing what is meant by ‘motion’, eventually Aristotle is led from his earlier mistakes to mistakes about time, about “the eternal”, and about what is now called ‘entropy’ (Bk VII, Pt 1):

- Now, since time cannot exist and is unthinkable apart from the moment, and the moment a kind of middle-point (uniting as it does in itself both a beginning and an end), a beginning of future time and an end of past time, it follows that there must always be time... [That’s no “proof” – and modern cosmology suggests it’s wrong!]
- [It] is clear that motion is eternal and cannot have existed at one time and not at another: in fact such a view can hardly be described as anything else than fantastic. [What is “fantastic” is that Aristotle could have made such an obviously stupid mistake! I’ll go into details, soon, Dear, but for now, just consider this: when a

¹ Yet, Dear, I will suggest in later chapters (e.g., in **Z**) that Nature may have “a purpose” in gravitational “repulsion” (not attraction!). The “purpose” suggested, however, is not to do something “useful”, but to try to push all the congealed positive energy (i.e., mass) into Black Holes, where it can be recombined with “space” (negative energy) to return this universe to a state of total nothingness from which it started. If there’s any “truth” to this speculation, then the assessment of Nature’s “purpose” by all life forms is that her purpose is totally pointless!

bubble breaks, how do its pieces move when they possessed no motion before they broke?!!]

- But that which is produced or directed by nature can never be anything disorderly: for nature is everywhere the cause of order. [Which is exactly the opposite from what is now described as the Second Principle of Thermodynamics: living things can produce “order” (and, if certain grandchildren’s rooms are any guide, they also can produce “disorder”!), but even the order produced by living things is at the expense of greater disorder (and more energy degradation) in the rest of the universe, i.e., an increase in entropy.]

Later in this book, I’ll show you some details of how all three of the above quotations from Aristotle are untenable. Here, let me try to show you just enough so that I think you’ll see that Aristotle is wrong. If you find that my explanations are inadequate, Dear, then perhaps you would like to jump ahead to **S** (or read some science books in your school library, or maybe search on the internet for “the start of time”, for “conservation of momentum”, and for “entropy increase”).

To start my demonstration (and thereby to show you why Aristotle’s “proof” of the existence of God is wrong), let me summarize his argument. He argues:

1. All motion has its cause: “Each kind of motion... necessarily involves the presence of the things that are capable of that motion”,
2. There must be a “first mover: some... thing which, while it has the capacity of moving something else, is itself unmoved and exempt from all change”, and then
3. This “first mover” is God.

And notice, Dear, that Aristotle’s God is totally different from the Jewish, Christian, Islamic, and Mormon gods. Thus, there’s no point in “worshiping” or “entreating” this God, because He spends eternity thinking only “good thoughts” – and the only “good thoughts” are about his own belly button (or whatever). Yet, I think that trees are really great, so maybe He also spends some time thinking about trees. And your grandmother seems to think that flowers are wonderful, so maybe...

Oh, before continuing with my demonstration, maybe it would be useful if I included two other asides. One aside is to note that what Aristotle is doing, here, is essentially the same as was done by even more primitive people: he encountered an unknown (how things started to move), and decided that the unknown was some god. And my second aside is to note that his argument is unconvincing not only because his science is wrong but also because his argument is “circular”: he assumes that all motion must have a cause to conclude that there is something (namely, God) whose motion doesn’t have a cause. Thereby, I conclude that Aristotle didn’t have a grandchild who would have immediately said: “Gimme a break!”

But, returning to the incorrect science that Aristotle included in his “proof”, his error almost certainly arose from a characteristic weakness of all philosophers, even to this day: too much thinking; not enough data! It’s true that Aristotle engaged in extensive data collection in biology, but obviously he didn’t collect sufficient data in physics. If he could have seen a fireworks display, he wouldn’t have made the error of assuming that something (namely God) was necessary to start things in motion: light the fuse of a stationary rocket, it shoots into the air (no god pushed it!), it stops in mid air, and then explodes! What “prime mover”?! But even with the absence of a fireworks display, if he had been sufficiently observant, he could have seen similar phenomena with a closed pot full of boiling water, or some food roasting in a fire, or even from sparks flying from a “crackling” log in a fire: all cases are derived from the expansion of heated gases, and the relevant observation is that, although initially there is no motion, after the “explosion”, motion appears.

The physical principle that Aristotle applied is now called “the first principle of mechanics” (previously called Newton’s first “law” – even though Aristotle and Galileo recognized it before Newton): a body will remain at rest or continue in uniform motion unless acted on by some external force. Thereby, because some things in the universe were obviously in motion, Aristotle convinced himself that something (whom he called God) must have started the motion. But what Aristotle didn’t see (nor did anyone else for the next ~2,000 years!) is what’s now called the principle of conservation of momentum: when bodies interact in the absence of external forces, the total momentum remains constant (i.e., and to be more exact, the vector sum of the mass times the velocity for all bodies, before and after the interaction, are equal). Now, Dear, there are complications in the principle of the conservation of momentum (some of which I’ll explain in a later chapter, in

* Go to other chapters *via*

Ux), but for now, I hope that from a few examples, you’ll see enough so that the resolution of Aristotle’s quandary about how motion first started (without help from any god!) will be obvious.

Thus, consider a Fourth of July fireworks display. When the propellant in the rocket is lit, hot gas (the products of the combustion) comes shooting out from the back of the rocket with a certain momentum. Meanwhile, at each small time interval, exactly the same momentum imparted to the exhausted gas is imparted to the rocket, shooting it upward (against the force of gravity). Notice, Dear, that the “prime mover” that sets the rocket in motion is not some god, but the thrust from the expelled gases: the momentum (mass times velocity) given to the rocket is exactly the same (but in the opposite direction) as the momentum of the exhaust gases.

Eventually, when the propellant has all burned, the rocket’s momentum is depleted because, in this case, there are two “external forces”: gravity and the drag from the air.² Then (if things work right!), the fuse to ignite the “fireworks” is lit, and the rocket explodes. Now, Dear, if you were to multiply the mass by the velocity of each burning fragment of the rocket (as it explodes in the “fireworks”), and then add all these momenta together, you would find that the momentum of fragments in any direction is exactly balanced by the momentum of other fragments in the opposite direction. That is, there was zero momentum when the rocket stopped, and if you do your summations correctly, you’ll find there will be exactly zero momentum after the rocket explodes.

Well, maybe I should add a couple of comments. First, Dear, I don’t say that the summation will be easy (summing the momenta for all fragments of the exploded rocket). And second, I don’t guarantee that you will get exactly zero total momentum when you complete your sum. But if you don’t, and if you made no error, then you just won yourself a Nobel Prize in

² Dear: One of the “complications” (which I’ll gloss over) is: What happens to the rocket’s momentum as it stops? In summary, Dear, if one treats the rocket and the entire Earth (with its atmosphere) as the “interacting bodies”, then the total momentum is still conserved. In particular, as the rocket’s upward momentum is depleted by the force of gravity pulling it toward the Earth, there is an equal and opposite force from the rocket, pulling the Earth upward – though it would be rather hard to detect the resulting motion of the whole Earth! Also, the part of the momentum of the rocket that is depleted because of air drag is given to the molecules of the air. And eventually, when the pieces of the rocket return to Earth and the exhaust gases (with their downward momentum) mix with the air that’s pulled up by rocket (as it skids to a stop), the total momentum resulting from lighting the rocket’s fuse is exactly the same as the original momentum, namely, zero.

Physics – because, after hundreds of years of searching, no one else has ever encountered a case in which momentum wasn't conserved!

Now, let me return to Aristotle's argument about a “prime mover”. Were it not for so many lives that have been damaged by his speculations, it would be rather humorous to realize that Aristotle could have burst his entire speculative bubble by himself, if just once he had paused to watch a bubble burst! Thus, Dear, if only he had looked closely, say at a soap bubble in his bath (assuming that they used soap in those days!), and then, when it burst, if only he had been hit in the eye with a tiny piece of an exploding soap bubble, I bet he would trashed his two books *Physics* and *Metaphysics*. I can imagine his surprise:

“What?! The bubble was just sitting there, with zero motion, and yet something came shooting out and hit me in the eye? Motion generated from nothing?! No prime mover? No God? For all my speculations, I get nothing but soap in my eyes?!”

I hope you see, Dear, that no “prime mover” is needed to start motion in the universe: all that is needed is that the total momentum of the “system” (in this case, all the pieces of the soap bubble) sums to the same value as the total momentum before the bubble burst (i.e., to zero, if the bubble was initially at rest). Such a bubble bursting (or, in the case of the universe, the Big Bang) eliminates the need to assume a prime mover, thereby eliminating Aristotle's (and everyone else's) God, leaving nothing but soap smarting in their eyes!

Given Aristotle's amazing intelligence, I expect that if had paid more attention to data, he would have inferred the principle of conservation of momentum. If he had, then I'm sure he would have seen that he didn't need a “God” to be a first mover; instead, all that was needed was an explosion, e.g., the “Big Bang”! Thus, these days, we can dismiss the idea of God as a “first mover” by saying: it's consistent with the principle of the conservation of total momentum that the “first mover” in the universe was an explosion.

But even today, religious people respond with: “Maybe so, but it was God who created the Big Bang”. But then there are others of us who respond:

“Fine, go ahead and worship the Big Bang if you feel that you must – but do it on your own time, with your own money, and without bothering the rest of us. In particular, for crying out loud, don’t bug us with your moaning and groaning about some sanctified morality dictated by the Big Bang – and stop polluting my grandchildren’s mind with your garbage!”

But obviously my “anger juices” are starting to flow – so let me set aside comments about morality until later chapters.

Now, Dear, if you’re jumping ahead of me with “But who caused the Big Bang?”, then great! But I don’t want to get to details about speculations of the causes of the Big Bang until later chapters (in **S** and **Z**). For now, let me just summarize with: nobody knows the answer to that question, but it’s not unreasonable to hypothesize that the Big Bang occurred by itself.

Thus, just as I could demonstrate to you (if I remember my quantum mechanics well enough!) that there’s an extremely small but nevertheless finite probability that in the next instant this book will jump six feet into the air, all by itself, I wouldn’t be surprised if, someday, someone demonstrates that out of totally nothing (if this total “nothing” obeys the principles of quantum mechanics!), an energy fluctuation can occur (with equal negative and positive values, and with some of the positive energy congealed to mass), with total momentum exactly equal to zero (exactly as it was before the fluctuation) – which was then the Big Bang (which was also when time started, but let me leave that topic for later).

To such speculation, of course those who are determined that there is a God will no doubt respond: “So, see, that proves it: God exists, for who else caused the quantum fluctuation in the void.” To which I expect that the best response is to shake one’s head, quote a certain grandchild’s “whatever”, and walk away.

In later chapters, Dear, I’ll supply some additional details about my speculations about “symmetry-breaking fluctuation in the void”. In addition, in later chapters (labeled with **R**, for Reason), I want to show you the response from the mystics to Aristotle’s analysis, especially the response of the Christian mystics. They essentially banned all of Aristotle’s books, probably because they didn’t want people to infer from Aristotle’s conclusion that there was no point in praying to God (and more significantly, no point in paying a commission to the clerics!), because God was too busy

* Go to other chapters *via*

contemplating his own navel to pay any attention to people! Here, instead, in the remainder of this chapter, I want to show you additional “proofs” for the “existence” of “God” that have been proposed – and are all easily seen to be just as ridiculous as Aristotle’s.

Approximately 1400 years after Aristotle, “Saint” Anselm (1033-1109), the Archbishop of Canterbury, gave his famous “proof of the existence of God.” You can find the full text of his argument on the internet (as well as the modification of his argument used by Descartes in his “proof” of God’s existence); here, let me just outline Anselm’s argument.

In essence, Anselm’s “proof” rests on the following three steps:

- 1) a perfect being [God] can be conceived,
- 2) if this perfect being didn’t exist then it wouldn’t be perfect, therefore
- 3) a perfect being [God] must exist.

Three inadequacies in Anselm’s “proof”, that devastate his argument, are the following.

- 1) The idea of “perfect” is subjective. For example, Dear, for me, a “perfect being” might be a tree that can move, whereas for you, a “perfect being” might be a certain person who...! I won’t challenge your idea of “perfection”, Dear, but let me add that I consider trees (and other vegetation) to be close to perfection, because they don’t eat other life forms; they “eat” only water, dirt, and sunlight!
- 2) To suggest that for something to be “perfect” it must also exist is without basis. For example, Dear, I can imagine a perfect circle, but to be honest (although maybe I shouldn’t criticize a certain grandchild’s artistic abilities), I feel obliged to say that, except as a thought, no perfect circle exists, has existed, or probably will ever exist.
- 3) To suggest that “existence” adds to “perfection” is without basis. For example and in contrast, it’s easy for me to mention many people (e.g., Stalin, Hitler, and so many religious mystics) who would have been much-nearer perfection if they had never existed! And more to the point, my choice for a “perfect god” would be one who doesn’t exist, never existed, and never will!

In summary, Dear, please don't forget: just because you can conceive of something (perfect or not) doesn't mean it exists (as anything more than a thought).

More famous “proofs” of God's existence were given about 200 years after Anselm by “Saint” Thomas Aquinas (1225-1274). He is “credited with” (or “blamed for”, depending on your perspective!) providing a philosophical base for the entire Catholic religion and is still known as the “patron saint of Catholic education”. Yet, his main “contribution” was to manipulate Aristotle's “rediscovered” ideas into forms more palatable for the Christian clerics.³

In what follows, I'll quote parts of Thomas's “proofs” in his own words [which you can find on the internet and to which I've added a few comments in “square brackets”], and then comment on each part.

The existence of God can be proved in five ways... The first and more manifest way is the argument from motion [i.e., Aristotle's “proof”, copied almost exactly]. It is certain, and evident to our sense, that in the world some things are in motion. Now whatever is moved is moved by another... If that by which it is moved be itself moved, then this also must need be moved by another, and that by another again. But this cannot go on to infinity, because then there would be no first mover... Therefore it is necessary to arrive at a first mover, moved by no other; and this everyone understands to be God.

One criticism of this “proof” is, of course, the same as I gave above against Aristotle's original “proof”, namely, that Aristotle apparently didn't understand the principle of conservation of momentum. Another obvious criticism (just as against Aristotle's original proof) is that this argument is circular: the “principle” that everything has a mover is used to “prove” that something doesn't have a mover (i.e., God). The rest of us say: “Hey, now... wait a minute!”

The second way is from the nature of efficient cause. In the world of sensible things, we find there is an order of efficient causes. There is no case known (neither is it, indeed, possible) in which a thing is found to be the efficient cause of itself; for [if] so, it would be prior to itself, which is impossible. Now in efficient causes, it is not

³ Incidentally, Dear (and as I'll show you in more detail in later chapters), I call them “Aristotle's ‘rediscovered’ ideas”, because during the Dark Ages, Aristotle's ideas essentially vanished in the Christian world – but fortunately for humanity, the Muslims had not banned Aristotle's works, and eventually, they resurfaced in Europe, after the Muslims had conquered what is now Spain.

possible to go on to infinity... Therefore it is necessary to admit a first efficient causes, to which everyone gives the name of God.

This is the same dumb argument as in his “prime mover” argument, just “generalized” to all cause and effects, not just motion. He uses the principle of “cause and effect” to prove that there must be a “first cause” (i.e., an “effect”, God, that is its own cause) – violating his assumption that the principle of causality is always valid!

Further, Dear, when you study more physics, you’ll see that, actually, much data suggest that, in many different cases, “a thing is found to be the efficient cause of itself”, which Thomas says “is impossible”. For example, even if an electron (or other “elementary particle”) has insufficient energy to overcome some “energy barrier”, it can quite easily be seen to tunnel through various barriers “all by itself”.

An obvious example is radioactive decay of nuclei. The quantum mechanical explanation for such phenomena (e.g., if, in the next minute, this book, all by itself, jumps six feet into the air) is that nature can be described only in probabilistic terms, and just as there already was a finite probability (quite large) that an elementary particle can tunnel through an energy barrier (e.g., in nuclear decay), there is a finite probability (extremely small) that this book will leap up six feet against its “gravitational energy barrier”.

But I advise you, Dear: next time you spill your glass of milk, don’t blame it on “normal quantum-mechanical fluctuations” – your mother knows enough about both you and quantum mechanics to question your veracity... And by the way Dear, as I’ll detail more in a later chapters (S and U), the principle of causality, itself, may not always be valid – and if you can demonstrate another case where it’s invalid, then you can win yourself another Nobel Prize in Physics!

Meanwhile, let me move on to Thomas’s third “proof”:

The third way is taken from possibility and necessity, and runs thus. We find in nature things that are possible to be and not to be... [But] if at one time nothing was in existence, it would have been impossible for anything to have begun to exist; and thus even now nothing would be in existence – which is absurd. Therefore, not all beings are merely possible, but there must exist something the existence of which is necessary. But every necessary thing either has its necessity caused by another, or not. Now it is impossible to go on to infinity in necessary things which have their

* Go to other chapters *via*

necessity caused by another... Therefore we cannot but admit the existence of some being having of itself its own necessity, and not receiving it from another, but rather causing in others their necessity. This all men speak of as God.

The errors in this “third proof” are similar to the errors in his first two “proofs”, for really this “third proof” is the same as his first two: all he’s done is generalize from “motion” (“Proof” #1), to “cause and effect” (“Proof” #2, i.e., a generalization of motion), to “possibility and necessity” (“Proof” #3, i.e., a “generalization” of cause and effect). Specifically, in this “Proof” #3 he’s used his (rather weird!) principle of “possibility and necessity” – that is, “that every necessary thing... has its necessity caused by another” – to “prove” that there is something that doesn’t (which he calls God), but which thereby contradicts his assumption.

In plainer language, even a child responds to this type of argument with: “Yah, but then, who made God?” And the hundreds of millions of Hindus in the world would say: “How dare you assume that the process doesn’t go on to infinity? It’s our central belief that the universe always was and always will be!” And those who have studied quantum mechanics would say:

“You understandably have a very naive view of nature. You came close to a ‘useful’ view of nature when you said: ‘The third way is taken from possibility and necessity’ – if only you would have thought more about what is meant by ‘possibility’. Thus, to say that ‘We find in nature things that are possible to be and not to be...’ is a ‘black-versus-white’ or ‘on-versus-off’ view of nature. That’s not the way nature seems to work: a huge amount of data supports the central hypothesis of quantum mechanics that what appears to be ‘impossible’ (such as this book jumping six feet into the air) is actually possible but has a very low probability of occurring.”

And actually, Dear, there is something more here – although I’m reluctant to show it to you now, for fear you won’t understand. I’ll try to explain this to you in Chapter **Z**, but let me at least mention it now. The basic idea, which Thomas was trying to get to, was Aristotle’s: “nothing can be created from nothing”. I agree with that – and so I then must argue (as I will in **Z** and did a little in **A**) that there’s still nothing here! I expect you think that that’s a typo, but it’s not! It’s easy to argue that there’s no momentum here (i.e., the total momenta of all things in the universe sums to zero, exactly as it did before the first “symmetry-breaking fluctuation in the void”, when time

started). It’s even easier to argue that there’s no total electrical charge in the universe. But I’ll also argue that the total energy also sums to zero (exactly as it was before the fluctuation that started this universe).⁴

In outline, my argument is as follows. First, consider all the mass in the universe as “congealed” or “resonating” (positive) energy (as per Einstein’s well-tested result that $E = mc^2$). Then, consistent with Dirac’s solution to the equations for relativistic quantum mechanics, which I’m not going to show you (!) but which led to his predictions for positrons (for which he was awarded the Nobel Prize), it appears that what we call “space” (or the vacuum) is actually “totally filled” with negative energy states (except for occasional holes that develop and which are called “antiparticles”, such as “anti-electrons”, also known as positrons). I then suggest that the total amount of negative energy (which we call “space”) exactly balances the total positive energy that exists (including the positive energy that exists as mass).

In that sense, therefore, there is “nothing” here (no momentum, electrical charge, energy, ...), exactly as before the Big Bang. Nonetheless, the total “nothing that now exists” is separated into parts: the part we call “space” and the part that we call (positive) energy – including the positive energy that “congealed” and eventually formed into a certain grandchild! And even though it may just add to your confusion, I’ll add my expectation that within Black Holes, the separate parts (positive and negative energy) are probably reassembled into the original “nothing”, so that within Black Holes, space (and time) vanish.

Well, I don’t know if that helped or not. Ignore it (or now read **Z**) if you desire. Meanwhile, let me get back to Thomas’s “proofs”:

The fourth way is taken from the gradation to be found in things [and seems to be taken from Anselm’s “perfection proof”]. Among beings there are some more and some less good, true, noble, and the like. But *more* and *less* are predicated of different things according as they resemble in their different ways something which is the maximum... Therefore there must also be something which is to all beings the cause of their being, goodness, and every other perfection; and this we call God.

Just as with Anselm’s “proof” (and, incidentally, as I’ll outline later in Chapter **Q2**, just as with what Plato wrote, 1500 years earlier), Thomas’s

⁴ To (any!) other readers: sorry about that. I wrote the above (and sent it to my granddaughter) before I revised the first chapter, **A**. There, I now show that the total energy of our universe has been “known” to be zero for at least a quarter of a century. I didn’t know that “result” when I wrote the above.

fourth “proof” can be demolished with: just because one can conceive of something doesn’t mean it exists! I must admit, though, that the conception of a perfect con game does seem to exist, in which people are duped by the clerics of the world into believing that they (the clerics!) are the ones who have authority to define “perfection”! Anyway:

The fifth way is taken from the governance of the world. We see that things [that] lack knowledge, such as natural bodies, act for an end, and this is evident from their acting always, or nearly always, in the same way, so as to obtain the best result. Hence it is plain that they achieve their end, not fortuitously, but designedly. Now whatever lacks knowledge cannot move towards an end, unless it be directed by some being endowed with knowledge and intelligence; as the arrow is directed by the archer. Therefore some intelligent being exist by whom all natural things are directed to their end; and this being we call God.

Amazing! I can understand why someone in the Dark Ages could accept the nonsense in this “fifth proof”, but it astounds me that, today, anyone would still “believe” such nonsense! But maybe there’s something here worthy of comment.

Thus, beyond the obvious that what we call “best” is subjective (e.g., it’s “best” when rocks fall down, rather than up, because it’s best for us to know which way they fall!), and beyond the obvious that “whatever lacks knowledge cannot move towards an end” is just a play on the word “knowledge” (because rocks clearly have “knowledge” of gravity), I find some amusement in what follows from Thomas’s argument: that we should worship that by which “all natural things are directed”. That is, I might even go along with Thomas on this one, provided I use my own meaning of “worship”, which wouldn’t involve any “priests” (save for the “high priests of science”, such as Galileo, Newton, Darwin, Maxwell, Einstein, and others). That is, my “reverence” would be just my personal amazement of all the principles that seem to govern this universe and my hope that eventually humans will understand them all.

After Thomas, still others offered “proofs” of the existence of God, including Descartes and Kant. In an earlier chapter (**Ia**), I already showed you the silliness in the “proof” proposed by Descartes: his premiss that “Nothing less than God is adequate to cause our idea of God” is absurd. In a later chapter (**M**, dealing with Morality), I’ll try to show you that Kant’s “proof” (based on the premiss that there must be a God because we all have similar ideas about morality) is not only vacuous, it’s immoral! Here, let me

show you comments by E. Haldeman-Julius on one variation of Kant’s “proof”, developed when the word ‘law’ was still used to describe well-established scientific principles.⁵

The Fallacious Argument of “Law and a Lawgiver”

We now come to the theistic argument that where there is law there must be a lawmaker. We are told that the orderly, regular movements of the planetary system, for instance, prove “natural laws,” and the conclusion is asserted that these natural laws imply the existence of a lawgiver. One could not expect to go through a discussion of theism without meeting this fallacious and untenable piece of reasoning. It has been dismissed as unsound by competent thinkers, but the argument persists,

The fundamental error is found in the theist’s habit of confusing a human law with a natural “law.” A legislature passes a law saying that after a certain date it shall be illegal to behave in a certain way, to have liquor, for instance. If you break this law, and are not caught, nothing happens except the usual next morning headache. If you are caught, you may be sent to the penitentiary. Or let us say that the people make up their minds to break the law so flagrantly that enforcement falls down and the law is either ignored or repealed. That is a human law. That implies a lawmaker, of course.

But it is treacherous logic to say the “laws” of nature are the result of the will of a lawmaker. The scientific use of the word “law” as applied to nature means only this: things in nature act in certain ways – their movements are uniform – and when you use the word “law” you merely describe how things are observed to conduct themselves. This does not mean that someone – a God – told them to act just that way. That is an assumption.

Bertrand Russell gives serious consideration to this argument in one of his lectures, and after disposing of the claim of a lawgiver in nature along the lines I have just followed, this English philosopher adds: “Why did God issue just those natural laws and no others? If you say that he did it simply for his own good pleasure, and without any reason, you then find that there is something which is not subject to law, and so your train of natural law is interrupted. If you say, as more orthodox theologians do, that in all the laws which God issues he had a reason for giving those laws rather than others – the reason, of course, being to create the best universe, although you would never think it to look at it – if there were a reason for the laws which God gave, then God himself was subject to law, and therefore you do not get any advantage by introducing God as an intermediary. You have really a law outside and anterior to the divine edicts, and God does not serve your purpose, because he is not the ultimate lawgiver.” In short, this whole argument about natural law no longer has anything like the strength that it used to have.

⁵ Dear: As you can find on the internet, this quotation is from a debate between E. Haldeman-Julius and Rev. Burris Jenkins, on the topic “Is Theism a Logical Philosophy”, held at The Linwood Forum of Kansas City, Mo. – in Dr. Jenkins’ Linwood Boulevard Christian Church – on Sunday evening, 13 April 1930.

Joseph McCabe says in one of his books: “The phrase, ‘God has impressed his laws on the universe,’ is one of the loosest conceivable. It is seen to be utterly unintelligible the moment you remember the unconsciousness of objects; there is not the remotest conceivable analogy with human legislation, as the argument implies. In fine, it is clear that if things acted irregularly there would be more reason to look for explanations. A thing acts according to its nature, and if its nature be relatively stable (like an atom), its action is consistent and regular.”

There are many other theistic arguments, but all, on examination, are seen to be mere assumptions, bare sophistry, adroit evasion of obvious facts, the urging of metaphysical balderdash in an attempt to refute realistic approaches to life. The arguments for theism are heated and numerous, but the results are always the same – they cannot show us the slightest evidence for the God idea. They cannot show us the finger of God in any period of man’s history. They cannot show us their God in nature. They cannot show us that God exists, that there is any power interested in man or his problems, that there is any method for man to save himself except through his own efforts, through his own mental exertions. Man must fight with his own sweat, and blood, and tears. If he is winning a measure of joyousness and gladness and laughter out of life, it is because of his faith in his own powers and not in some mysterious entity beyond the clouds.

As E. Haldeman-Julius summarized:

For centuries men have fought in the most unusual and devious ways to prove the existence of a God. But evidently a God, if there were a God, has been hiding out. He has never been discovered or proved. One would think a God, if any, should have revealed himself unmistakably. Isn’t this non-appearance of a God (the non-appearance of a God in the shape of a single bit of evidence for his existence) a pretty, strong, sufficient proof of non-existence?

If you want to learn more about these “unusual and devious ways to prove the existence of a God”, Dear, then search on the internet. For example, if you type “proofs for the existence of God” into the search engine at Google, you’ll get at least as many “hits” as I did: 27,800! Actually, though, there are only a handful of “original” proofs, such as those that I’ve already outlined in this chapter. These different “proofs” of God’s existence (all wrong!) are commonly grouped under the following titles:

- The Ontological (or Existence) Argument (such as Anselm’s, Descartes’, and Thomas’ third “proof”),
- The Causality and/or Cosmological Argument (such as Aristotle’s and Thomas’ first and second “proofs”),

* Go to other chapters *via*

- The Time or Chronological Argument (that there must have been a start),
- The Law-Giver Argument (variations of Kant’s idea, which I’ve mentioned a little, above, and I’ll show you more of in **M**),
- The Religious Experience Argument (which I’ll get to and debunk in **X** entitled “EXposing Ignorance”),
- The Miracles Argument (which is trivially easy to dismiss, at least for anyone who agrees that $A \equiv A$ and $A \neq \neg A$!),
- The *Prima Facie* or Historical Argument (40 million Frenchmen can’t be wrong!), and
- The Design or Teleological Argument (as in Thomas’ fifth “proof”).

Of these “proofs”, the Design or Teleological Argument “proofs” are among the most amazing. Although details vary, the general thrust is as in Thomas’s: this is such a wonderful world in which we live, it must be the result of some deliberate plan by some omnipotent (viz., “all powerful) god.

What amazes me about these Design or Teleological proofs (where *teleos* is the Greek word for ‘end’ or ‘purpose’) is that people who advance them are still alive! Think of it Dear: nothing on Earth for a thousand million years but an organic soup; finally a molecule reproduces itself (perhaps on a template of some crystalline rock next to some volcanic heat source); then, after maybe another thousand million years, with the organic soup changing its composition, a reproducing molecule encases itself in a membrane in which only some molecules can enter – the first cell; and so on it went, for more thousands of millions of years, until finally a human stands up, looks around, and says “My but wasn’t it nice of the dear gody to prepare such a beautiful place for me to live.” And why I wrote, in essence, “what most amazes me about such a ‘proof’ is how anyone who advocates it manages to continue living” is because, in contrast, it would seem to be entirely fitting if the person’s DNA molecules immediately shut down the person’s entire system in disgust, maybe with the flashing message: “Gimme a Break!” If ever there were an appropriate use of the comedian Roger Daingerfield’s familiar line, it would be if our DNA molecules complained: “I don’t get no respect”!

* Go to other chapters *via*

Now, Dear, given the errors in all “proofs of God’s existence” and the total lack of any evidence for his existence, one might have thought that the mystics of the world would have given up trying to prove “His” existence. But the mystics keep mumbling the same absurdities – and even add to them. For example, what follows is the latest “official proof of the existence of God” (at least it’s the latest I’ve found on the internet) as given by “His Holiness”, Pope John Paul II, in 1985 [in which I’ve added the comments in brackets such as these].

He who reflects with an open mind on what is implied in the existence of the universe, cannot help but pose the question of the problem of origin. Instinctively, when we witness certain happenings, we ask ourselves what caused them. How can we not but ask the same question in regard to the sum total of beings and phenomena which we discover in the world?

Supreme Cause

A scientific hypothesis such as that of the expansion of the universe, makes the problem all the more clear. If the universe is in a state of continual expansion, should not one go back in time to that which could be called the “initial moment”, the moment in which the expansion began? But, whatever the theory adopted concerning the origin of the universe, the most basic question cannot be avoided. This universe is in constant movement postulates a Cause which, in giving it being, has communicated to it this movement and continues to sustain it. Without a supreme Cause, the world and every movement in it would remain “unexplained” and “inexplicable”, and our intelligence would not be satisfied. The human mind can receive a response to its questions only by admitting a Being who has created the world with all its dynamism, and who continues to maintain it in existence [Either that, or acknowledge that a useful summary of the data is that momentum is conserved and initially there was an explosion!]

The necessity to go back to a supreme Cause is all the greater if one considers the perfect organization which science ceaselessly discovers in the structure of matter. When human intelligence is applied with so much effort to determine the constitution and modalities of action of material particles, is it not perhaps induced to seek their origin in a superior Intelligence which has conceived the whole? If fice of [This must be a typo or an electronic “glitch”; maybe what was meant was a word similar to “Considering” or “In the face of”] the marvel of what can be called the immensely small world of the atom, and the immensely great world of the cosmos, the human mind feels itself completely surpassed in its possibilities of creation and even of imagination, and understands that a work of such quality and of such proportions demands a Creator whose wisdom is beyond all measures and whose power is infinite

[Either that, or consider the possibility that matter is congealed positive energy; that positive and negative electrical charges must balance if originally there was no

charge; that masses seem to attract one another by warping the negative energy states that we call the vacuum; that once sufficient mass collect, stars can be formed by nuclear reactions in their interior; that once the energy source from stars is available, then life can start on the debris of exploded stars (which we call planets); that once life forms and evolves, eventually it can gain sufficient intelligence to try to understand how the whole system works – or fall back to the primitive idea that if one doesn't understand it, then it must have been created by some god!]

Impressive Finality

All the observations concerning the development of life lead to a similar conclusion. The evolution of living beings, of which science seeks to determine the stages and to discern the mechanism, presents an internal finality which arouses admiration. This finality which directs beings in a direction for which they are not responsible or in charge, obliges one to suppose a Mind which is its inventor, its creator. [No! There is neither any such obligation nor any need to assume that something is “responsible or in charge”. These DNA molecules are doing what they learned to do by themselves – to continue.]

The history of humanity and the life of every human person manifest a still more impressive finality. Certainly, man cannot explain to himself the meaning of all that happens to him, and therefore, he must recognize that he is not the master of his own destiny. Not only has he not made himself, but he has not even the power to dominate his existence. [That depends on what you mean by “dominate”!] However, he is convinced that he has a destiny and he seeks to discover how he received it and how it is inscribed in his being. In certain moments he can more easily discern a secret finality which appears from a convergence of circumstances and events. Thus he is brought to affirm the sovereignty of him who has created and directs his present life.

[Dear: please never accept such garbage as this! Certainly there will be random events that will buffet your life – but always you will have choices. Please never, NEVER, NEVER yield the “sovereignty” of your life to anyone, including any person who exists and any god that exists only as the figment of primitive people's imaginations. As farmers learned at least 5,000 years ago, it's far better to work with your mind and with your neighbors to create an irrigation system than pray to the gods for rain – regardless of the complaints from the clerics that they don't get their commissions!]

[Beauty]

Finally, among the qualities of this world which impel us to raise our gaze aloft, there is beauty. It is manifested in the various marvels of nature; it is expressed in the numberless works of art, literature, music, painting and the plastic arts. It is appreciated also in moral conduct: there are so many good sentiments, so many stupendous deeds. Man is aware of “receiving” all this beauty, even though he cooperates by his action in its manifestation he discovers and admires it fully only when he recognizes its source, the transcendent beauty of God.

[What utter nonsense – and what immorality: to credit God for the accomplishments of humans! In later chapters (see **L** and **K**, dealing with Love and Kindness, and see **M**, dealing with Morality), I’ll show you how “moral conduct” has nothing to do with God (in spite of what the clerics say) and everything to do with the best way to accomplish our trio of survival goals. And as for beauty (and ugliness), your closely-related ancestor David Hume (1711-1776) stated it well: “Beauty in things exists in the mind which contemplates them” – and maybe Margaret Hungerford (1855-1897) said it even better: “Beauty is in the eye of the beholder.” Thus, Dear, to my mind, there is nothing more beautiful than Maxwell’s equations of electrodynamics – save, perhaps, for your grandmother’s paintings (neither of which have anything to do with God), and to my mind, there’s nothing uglier than the clerics of the world amassing enormous wealth and building enormous, richly-endowed temples to stupidity, by conning the people into “believing” God is the source of beauty – save, perhaps, for the ugliness of the god-idea itself.]

Faith Stimulates [the collection box!]

To all these indications of the existence of God the Creator [so, poor old Pope John has dropped down from “proving” the existence of God to just providing some “indications”!] some oppose the power of chance or of proper mechanisms of matter. To speak of chance for a universe which presents such a complex organization in its elements, and such marvelous finality in its life would be equivalent to giving up the search for an explanation of the world as it appears to us. [A totally stupid statement, made by someone who doesn’t have a clue about what “explanation of the world” means to a scientist – and of course doesn’t have a clue about quantum mechanics or chaos theory.] In fact, this would be equivalent to admitting effects without cause. [Dear: the Pope is here writing about something that is totally beyond his comprehension.] It would be an abdication of human intelligence which would thus refuse to think, to seek a solution for its problems. [In fact, Dear, not only are these statements totally wrong, they border on the asinine – made by someone refusing to think!]

In conclusion, a myriad of indications impels man, who tries to understand the universe in which he lives, to direct his gaze towards his Creator. [Well, maybe not “gaze” – how about “glance” – and then laugh it off as ridiculous!] The proofs for the existence of God are many and convergent. [So now, Pope John Paul is back to calling them “proofs”!] They contribute to show that faith does not humble human intelligence [Agreed: “faith” doesn’t “humble human intelligence”; instead, first it numbs intelligence – and then destroys it!], but stimulates it to reflections and permits it to understand better all the ‘whys’ posed by the observation of reality.”

[Dear: In later chapters, I’ll come back to this. Here, just let me suggest how this stupidity by the Pope can be demolished, with the following summary: trying to answer “why” is a waste of time; instead, ask “how”; then, learn “how”; and if there’s any “why” besides chance, it’ll be obvious when the “how” is understood. That is, Dear, no scientist worth her salt wonders about “why” (as in Aristotle’s silly idea

about “purpose”); instead, a scientist seeks to understand “how”: don’t ask about the “purpose” of a rock (the only purpose given to a rock is the purpose of the person who picks it up!); don’t ask “why” a rock falls; ask “how” mass warps space time.]

As a summary comment on Pope John Paul’s “proof” of God, let me demolish it with what Donatien Alphonse Francois, Marquis de Sade wrote more than 200 years ago:

Anything beyond the limits and grasp of the human mind is either illusion or futility; and because your god having to be one or the other of the two, in the first instance I should be mad to believe in him, and in the second a fool.

And for contrast to the above dribble written by Pope John Paul II, let me show the following, written by the British biologist Richard Dawkins:⁶

Science, Delusion and the Appetite for Wonder

You contain a trillion copies of a large, textual document written in a highly accurate, digital code, each copy as voluminous as a substantial book. I’m talking, of course, of the DNA in your cells. Textbooks describe DNA as a blueprint for a body. It’s better seen as a recipe for making a body, because it is irreversible. But today I want to present it as something different again, and even more intriguing. The DNA in you is a coded description of ancient worlds in which your ancestors lived. DNA is the wisdom out of the old days, and I mean very old days indeed.

The oldest human documents go back a few thousand years, originally written in pictures. Alphabets seem to have been invented about 35 centuries ago in the Middle East, and they’ve changed and spawned numerous varieties of alphabet since then. The DNA alphabet arose at least 35 million centuries ago. Since that time, it hasn’t changed one jot. Not just the alphabet, the dictionary of 64 basic words and their meanings is the same in modern bacteria and in us. Yet the common ancestor from whom we both inherited this precise and accurate dictionary lived at least 35 million centuries ago.

What changes is the long programs that natural selection has written using those 64 basic words. The messages that have come down to us are the ones that have survived millions, in some cases hundreds of millions, of generations. For every successful message that has reached the present, countless failures have fallen away like the chippings on a sculptor’s floor. That’s what Darwinian natural selection means. We are the descendants of a tiny elite of successful ancestors. Our DNA has

⁶ Dear: I copied this “lecture” from the internet; it contains the following introduction. “In his role as the Charles Simonyi Professor For The Understanding of Science at Oxford University, Dawkins regularly talks to the public regarding his views on the wonders of science. Several weeks ago, on November 12th, 1996, he delivered the following Richard Dimbleby Lecture on BBC1 Television in England.”

proved itself successful, because it is here. Geological time has carved and sculpted our DNA to survive down to the present.

There are perhaps 30 million distinct species in the world today. So, there are 30 million distinct ways of making a living, ways of working to pass DNA on to the future. Some do it in the sea, some on land. Some up trees, some underground. Some are plants, using solar panels – we call them leaves – to trap energy. Some eat the plants. Some eat the herbivores. Some are big carnivores that eat the small ones. Some live as parasites inside other bodies. Some live in hot springs. One species of small worms is said to live entirely inside German beer mats. All these different ways of making a living are just different tactics for passing on DNA. The differences are in the details.

The DNA of a camel was once in the sea, but it hasn't been there for a good 300 million years. It has spent most of recent geological history in deserts, programming bodies to withstand dust and conserve water. Like sandbluffs carved into fantastic shapes by the desert winds, camel DNA has been sculpted by survival in ancient deserts to yield modern camels.

At every stage of its geological apprenticeship, the DNA of a species has been honed and whittled, carved and rejigged by selection in a succession of environments. If only we could read the language, the DNA of tuna and starfish would have ‘sea’ written into the text. The DNA of moles and earthworms would spell “underground”. Of course all the DNA would spell many other things as well. Shark and cheetah DNA would spell “hunt”, as well as separate messages about sea and land.

We can't read these messages yet. Maybe we never shall, for their language is indirect, as befits a recipe rather than a reversible blueprint. But it's still true that our DNA is a coded description of the worlds in which our ancestors survived. We are walking archives of the African Pliocene, even of Devonian seas, walking repositories of wisdom out of the old days. You could spend a lifetime reading such messages and die unsated by the wonder of it.

We are going to die, and that makes us the lucky ones. Most people are never going to die because they are never going to be born. The potential people who could have been standing in my place but who will never see the light of day outnumber the sand grains of Sahara – more, the atoms in the universe. Certainly those unborn ghosts include greater poets than Donne, greater scientists than Newton, greater composers than Beethoven. We know this because the set of possible people allowed by our DNA so massively outnumbers the set of actual people. In the teeth of these stupefying odds it is you and I that are privileged to be here, privileged with eyes to see where we are and brains to wonder why.

There is an appetite for wonder, and isn't true science well qualified to feed it?

It's often said that people “need” something more in their lives than just the material world. There is a gap that must be filled. People need to feel a sense of purpose. Well, not a BAD purpose would be to find out what is already here, in the material world, before concluding that you need something more. How much more do you want? Just study what is, and you'll find that it already is far more uplifting than anything you could imagine needing

Let me otherwise summarize this chapter as follows. For me, it's rather sad to see how Aristotle made so many mistakes. He was absolutely brilliant, but he didn't pay enough attention to data. As for Pope John Paul, what saddens me is that such a foolish, ignorant person is the “spiritual leader” of so many people: he's the “spiritual leader” of approximately 1 billion people – and he has control of a least 2 trillion dollars worth of assets (i.e., more than \$2,000 worth of assets for each Catholic “believer”). And although the Pope's argument for the existence of God is foolish, he's not foolish enough to relinquish control over that many people and that much money! And similarly for the foolish and ignorant leaders of the Mormon church: even though they control only a relatively few people and relatively little money (maybe 10 million people and at least 20 billion dollars), these “leaders”, too, aren't foolish enough to give up their control.

In later chapters, I'll try to show you that all these “proofs” of “God” are even more ridiculous than I hope that they now appear. In particular, I'll try to show you:

1. No new information can ever be produced via logical deductions: the conclusions of all deductions are contained in their premisses. This is sometimes difficult to see, but for example for all the above “proofs” of God's existence, the assumption of his existence must be contained in the premisses.
2. Words are never adequate to “prove” the existence of anything; ontology is a waste of time; to demonstrate existence, forget about ontology (the theory of existence) and get busy with phenomenology (i.e., measurements, data, hypotheses, predictions, more measurements, etc.), i.e., get busy applying the scientific method.
3. Any statement of existence is only a hypothesis; no hypothesis can be demonstrated to be true; at best, we must just “muddle by” with useful working-hypothesis.

And I’ll close with a wish. Would that all the clerics of the world would come clean:

“We’re sorry. We’ve been running a con game, for the money and power that it generates. Except for knowing how to run a con game, we don’t have a clue about what’s going on in this universe. Please forgive us. We’ll give all the money back to the people, and turn all the churches into places for people to enjoy their lives.”

But I doubt that it will ever happen: power almost invariably corrupts. If only the people would see that the only power that the clerics have is what the people give them. Maybe some day everyone will just smile at the silliness and walk away – probably with some sadness, regretting the waste of so much money, energy, and time on so much stupidity.