

THE COSMOLOGICAL ARGUMENT FOR THE EXISTENCE OF GOD

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- II. Everything we do ASSUMES laws of cause and effect are in operation:

- A. We ask, "what caused" our illnesses?
- B. We ask, "what caused" an accident?
- C. We want to know "what caused" the stock market to fall?
- D. We ask, "what caused" the actions of murderers, child molesters, CEO's who steal from their corporations, etc.?
- E. We ask, "what causes" earthquakes, hurricanes, floods, and tornadoes?

- III. From a philosophical viewpoint, "Causes" are subdivided into two general categories:

- A. "Secondary" or "Caused Causes"
 - 1. A "secondary" cause is that which is NOT capable of explaining/causing everything else. If it can't explain everything, it's a "secondary" cause.
 - a. You cannot be blamed for everything; therefore you are a "secondary" cause. You did NOT "cause" the sun, the galaxy, Hurricane Andrew, your grandparents, etc.
 - b. An oak tree cannot explain the existence of everything, therefore, the oak tree is a "secondary" cause. It CANNOT explain animals, people, the moon, the acorn from which it came, etc.
 - 2. A "secondary" cause MUST be produced or brought into existence by something or someone else.
- B. A "Primary" or "Uncaused Cause" is SOMETHING or SOMEONE that CAN explain everything else. It MUST exist PRIOR TO every other thing or person.

1. Even the skeptic philosopher David Hume (*Letters of David Hume*, ed., J. Y. T. Grieg [Oxford: Clarendon Press, 1932], Vol. I, p. 187) admitted, "it is preposterous to think that anything could have come into existence without a cause."
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- C. Philosophers since the times of Plato and Aristotle have argued that there cannot be an "infinite regression" of secondary causes (Plato, *The Dialogues of Plato*, Vol. IV, trans. by B. Jowett [Oxford: Clarendon Press, 1953], pp. 463ff.; *The Timaeus*).

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- D. But secondary causes do exist! Therefore, there MUST be a "primary" or "first" cause.
- E. The Argument from Motion uses identical reasoning but deals with "primary" and "secondary" motion.

IV. What is the "First Cause" or the "First Mover" capable of explaining everything else?

- A. There are only two proposed alternatives:
1. Matter/A Non-intelligent entity.
 2. God/Mind/Intelligence.
- B. Whatever else may be true, the first cause/mover MUST be able to meet either one of two defining characteristics:
1. It must always have been in existence (It is eternal).
 2. It must have been capable of producing itself from nothing.
- C. The second option fails various tests:
1. It violates the laws of logic and reasoning. Look at what has to occur:
 - a. "Something" must produce "Itself" from "Nothing".
 - b. Yet, if "Something" produces "Itself", then, by definition, it cannot produce "Nothing" because it was producing "Itself" and it was "Something." Really, what we MUST believe is that "Nothing" produced "Something."
 - c. Yet, for "Nothing" to produce "Something", then "Nothing" must take action which requires "Something" to be present to initiate the action.
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 - a. If "Nothing" produces "Itself"/"Something", then there had to be a time when ABSOLUTELY NOTHING EXISTED. This means Zero, Zilch, Na-Na, NOTHING!
 - b. If "Nothing" existed, then there would have been "Nothing" to produce any heat and the temperature would have been ABSOLUTE ZERO (-273.16 C.). All laws of science say that movement is impossible at absolute zero. For anything to "pop into existence" from a state of "nothingness", movement of some type MUST occur.

3. THEREFORE, if you believe that “Something” “Popped into Existence” “From Nothing”, you MUST believe that
 - a. IN SPITE of evidence to the contrary from logic and science, and
 - b. ON THE BASIS OF “BLIND” FAITH.
 4. The alternative that “Something” must have been capable of producing “Itself” from “Nothing” should be rejected. If a “first cause” MUST meet one of two conditions and the condition that “Something” produced “Itself” from “Nothing” is not a valid option, then, of necessity, the First Cause MUST be eternal.
- E. Whatever else may be true, the “First Cause” of everything MUST be eternal since that is the only logical alternative remaining.
1. Matter is NOT eternal.
 - a. The Second Law of Thermodynamics and the concept of Entropy prove matter cannot be eternal.

Definitions:

Entropy: “A measure of the quantity of energy not capable of conversion into work.” [Isaac Asimov, “In the Game of Energy and Thermodynamics, You Can’t Break Even,” *Journal of the Smithsonian Institute* (June, 1970), p. 8.]

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- c. Entropy/The Second Law DEMAND a non-physical creation of matter and energy.
 - 1. The 1st Law tells us the total amount of matter and energy (TE) in the universe remains constant. Yet,
 - 2. The 2nd Law tells us that the total amount of “useful/useable” energy (Tuse) in the same universe is constantly decreasing. Since everything in the physical universe is matter in some form, and, since in every process some energy becomes “unusable” (Tun), all energy will eventually become unusable. Scientists call this the “Heat Death of the Universe.”

CHART FOR ILLUSTRATIVE PURPOSES ONLY

	Creation	3000 BC	1000BC	1000AD	3000AD.....Heat D.
TE	100%	100%	100%	100%	100%.....100%
Tuse.....	100%	97.5%	95.5%	93.5%	91.5%.....0%
Tun.....	0%	2.5%	4.5%	6.5%	8.5%.....100%

- 3. Therefore, as we go backward in time, the available or useful energy becomes progressively greater until we reach the beginning point (creation). Conversely, as we go forward in time, the unusable energy becomes greater until we reach the point where the universe ceases to exist (its heat death). But, IF ENERGY HAD A BEGINNING POINT, IT IS NOT ETERNAL. IF IT HAS AN ENDING POINT, IT IS NOT ETERNAL.

A HELP IN UNDERSTANDING WHAT GOD IS

To help the reader comprehend the nature of God, I would like to borrow an analogy from the book *Flatland* by Edwin Abbott.¹ Abbott was a mathematician and the model is geometric in nature. It was originally written in the 19th century for the purposes we are using it for here. Flatland is the story of a man who lives in a two-dimensional world--like a sheet of paper. In the surface of the paper there is only length and width--there is no such thing as thickness. You and I are three-dimensional beings--we have length and width and frequently considerable thickness. You cannot get me, a three-dimensional being, into a two-dimensional sheet of paper. You can draw a front view of me (a portrait), but that is not the whole me. You can draw a top view of me which because I am bald, ends up being three concentric circles, but that is not the whole me. If you and I were to look at the man in Flatland, we would see him as a profile (see figure 1). He would be outlined but have no thickness.

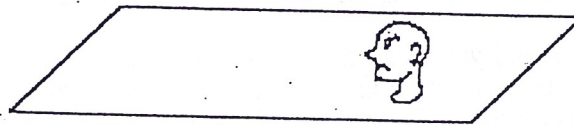


Figure 1: The man in Flatland.

One day the man in Flatland is visited by a sphere. The sphere is a three-dimensional object just as we are, and it just so happens that it crosses Flatland right in the man's living room. Now if you will think about that for a moment, you will realize that for the man in Flatland a rather incredible thing has happened. A dot appears on the man's floor with no cause that the man in Flatland can understand. A dot in Flatland is matter! In figure 1, the man, himself, is made up of a series of dots. Just as a tennis ball dipped in paint and touched to a sheet of paper would produce a dot on the paper, so too has our dot which the man in Flatland calls matter appeared out of nothing (see figure 2). As the man in Flatland watches, the dot becomes a circle which continuously grows in size (see figure 3). You will see if a plane truncates (or slices) a sphere, it will produce a circle; and the deeper the sphere sinks into the plane, the larger the circle will become.

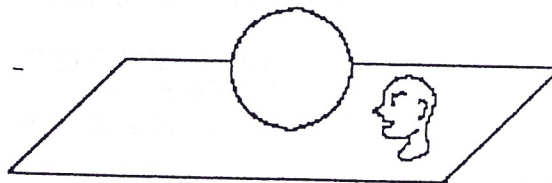


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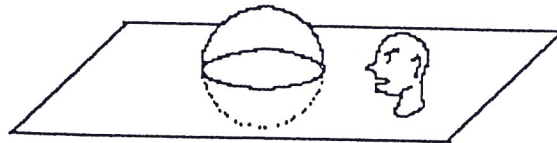


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The circle becomes so large it is about to fill the living room of the man in Flatland. He is terrified because he does not understand what is happening. All of the laws of science which state that matter cannot be created nor destroyed are being violated. What he sees is for him a true miracle. Just as he is about to run in panic from the room, the sphere reaches its equator, passes its equator, and gradually sinks out of the plane. So what happens to the circle in Flatland? It begins to shrink, and it becomes smaller and smaller until finally it is just a dot on his floor and then it is gone! Another violation of the laws of science! Matter cannot be destroyed and yet the man in Flatland has seen it happen. The man in Flatland is being confronted with miraculous and ghost-like

events which violates his science and his common sense.

Let us suppose now that the man in Flatland begins talking to the sphere, and he says to the sphere: "What is it like to be a sphere? The sphere says, "I'll tell you what it's like; draw a circle on your floor." This is not easy for the man in Flatland to do. His perception of a circle is a constantly curving line that returns to its origin, but he cannot see all of the circle at once. He can only see the side of the circle facing him. The only way he could see a whole circle would be to be inside the circle, and if he got inside he could never get out. People in Flatland commit suicide by drawing circles around themselves that they can never get out of. Because of this it takes along time for him to draw the circle. The sphere is most impatient with all this because he could have done it instantly. Finally the circle is completed and the sphere says, "Now what I want you to do is to rotate the circle! What he has in mind is that the man in Flatland will rotate the circle about its diameter producing a sphere, but what the man in Flatland does is to rotate the circle about its circumference, spinning it like a record on a record player. "No, no--rotate it the third way," says the sphere. "There is no third way you fool," cries out the man in Flatland, and for him this is true. There is no third way, no up and down in a thickness direction, and absolutely no way for him to comprehend what the sphere is talking about or what the sphere is. The only thing that he can understand is the world or dimension in which he lives.

Now the reason that I have told you this little story is to give you a foundation by which you can understand God. When you read, "In the beginning God created the heaven and the earth" (Genesis 1:1), you are reading a description analogous to Flatland. The concept is that, a God, who is in a higher dimension than are we, a God who has the same kind of relationship to us which the sphere had to Flatland, that, this kind of being touched our little "Flatland," so to speak, and in violation of all of our laws of science created matter out of nothing. God is so superior to us, he exists in such a higher dimension than do we that what is natural and ordinary to him is miraculous to us. The Bible recognizes this concept and uses it in every single description of God.

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TIME VARIES

$$T = \frac{T_0}{\sqrt{1 - v^2/c^2}}$$

GOD IS NOT LIMITED IN TIME

ACTS 1:7

PSALMS 90:4

2 PETER 3:8

PSALMS 102:27

DANIEL 2:21

PSALMS 74:16

LUKE 20:36

I TIMOTHY 6:16

I JOHN 1:5

SPACE OR MASS VARIES

$$M = \frac{M_0}{\sqrt{1 - v^2/c^2}}$$

GOD IS UNLIMITED IN SPACE

ACTS 17:22-30

JER. 23:23-24

PSALMS 139

1 COR 15:42-

NUMBERS 23:19

ISAIAH 55:9

JOB 9:32-

2 CHRON 2:6

RELATED CONCEPTS

ENTROPY · 4th - 5th: DIMENSION

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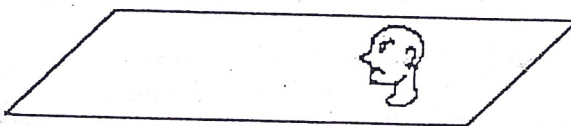


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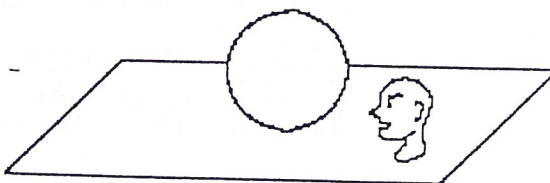


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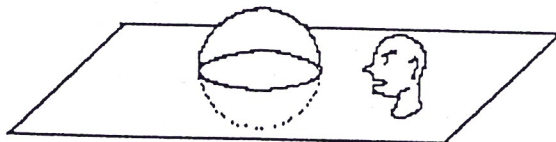


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Now the reason that I have told you this little story is to give you a foundation by which you can understand God. When you read, "In the beginning God created the heaven and the earth" (Genesis 1:1), you are reading a description analogous to Flatland. The concept is that, a God, who is in a higher dimension than are we, a God who has the same kind of relationship to us which the sphere had to Flatland, that, this kind of being touched our little "Flatland," so to speak, and in violation of all of our laws of science created matter out of nothing. God is so superior to us, he exists in such a higher dimension than do we that what is natural and ordinary to him is miraculous to us. The Bible recognizes this concept and uses it in every single description of God.

1. Edwin Abbott, *Flatland*, (Dover Pub. Inc., 1952).

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TIME VARIES

$$T = \frac{T_0}{\sqrt{1 - v^2/c^2}}$$

GOD IS NOT LIMITED IN TIME

ACTS 1:7

PSALMS 90:4

2 PETER 3:8

PSALMS 102:27

DANIEL 2:21

PSALMS 74:16

LUKE 20:36

I TIMOTHY 6:16

I JOHN 1:5

SPACE OR MASS VARIES

$$M = \frac{M_0}{\sqrt{1 - v^2/c^2}}$$

GOD IS UNLIMITED IN SPACE

ACTS 17:22-30

JER. 23:23-24

PSALMS 139

1 COR 15:42-

NUMBERS 23:19

ISAIAH 55:9

JOB 9:32

2 CHRON 2:6

RELATED CONCEPTS

ENTROPY · 4th - 5th: DIMENSION

A. THE COSMOLOGICAL ARGUMENT.

Perhaps the oldest known way of arguing for God is the Cosmological Argument. The argument has many forms, not all of them equally persuasive, but the form which stresses contingency seems to be the most fundamental.² Let us state the argument first in the form of a hypothetical syllogism:

1. If there is contingent being, then there is a necessary being.
2. A contingent being exists (the universe).
3. Therefore, there is a necessary being.

This syllogism is valid since it employs a legitimate operation of the hypothetical syllogism—asserting the antecedent. Premise two appears to be certain, and thus the only problem is in proving the first premise.

We can begin the proof of premise one by noting that you must have a necessary being in order to explain anything at all. We are dealing here with the most basic question of all metaphysics: "Why is there something at all rather than nothing?" All things we experience are obviously contingent, that is, they can't possibly explain their own existence; they could just as easily not-be. But something that can possibly not-be can't explain what exists, because it is incapable of accounting even for its own existence.

If something could account for its own existence, then it wouldn't be possible for it not-to-be. Therefore, if we're to have any rational account of things that can both be and not-be (contingent things), it must be by relating these contingent creatures to something which is *incapable of not being*. But this phrase—"incapable of not being"—is just a cumbersome expression for the Eternal Something, Eternal Nature, or the Necessary Entity.

If you deny this reasoning, you're driven to say either (1) that contingent being explains itself for all eternity or (2) that something can come from nothing. The first alternative would be equivalent to saying that something existed before it existed, which is absurd. If you choose the second alternative you've cut the taproot of all philosophy, all reason, all science. You would have to abandon both science and philosophy, for both are searches for explanations and you have rendered such a search impossible. You have violated the Law of Copernicus and we might as well stop arguing, for this Law is the basis of all meaningful discourse. If you honestly think that the world is ra-

2. The first three of St. Thomas' "Five Ways" are all forms of the Cosmological Argument—from motion, from efficient cause, and from contingency. See *Summa Theologica*, First Part ("Treatise on God"), Question 2, Article 3. See also the discussion by Edwards, *Reason and Religion*, p. 263.

tional, intelligible, and explicable, then you can't consistently argue that *everything* that exists is also capable of not-being.

Some timid souls wish to admit the contingency of the cosmos and stop there, but they can't escape the implications of contingency. It would be like admitting the smile but denying the face. It would be like a defense lawyer admitting several bits of incriminating evidence against his client and then saying: "Of course, we need not explain these facts." If you agree that the cosmos we experience is contingent, you are driven to ask: "*Contingent on what?*" Contingency means dependency, and you need to explain on what the universe is dependent. Only when you have identified this is the process of rational explanation complete.

You may ask: "Is there any scientific evidence for this contingency?" Yes, there is, because contingency implies temporality and in the last century scientists have accumulated some very persuasive evidence for the temporality of the universe. I refer specifically to the Second Law of Thermodynamics, also called the Law of Entropy. The Second Law must be understood in the light of the First Law, the Law of Conservation of Energy. The First Law says that neither matter nor energy is being created or destroyed at the present time (the law stops short of a metaphysical assertion). Hence, the quantity of energy in the universe is constant at the present but it is continually changing in form. The quantity of energy is constant, but this doesn't mean that energy is always available.

Now, the Second Law of Thermodynamics says that energy is constantly being diffused or dissipated, that is, progressively distributed throughout the universe. Some bodies are hotter than others, and heat is constantly flowing from the hotter ones to the cooler ones. Heat spontaneously flows from a hot body to a cold body, not the reverse. If this process goes on for a few billion more years—and scientists have never observed a restoration of dissipated energy—then the result of the process will be a state of thermal equilibrium, a "heat death," a random degradation of energy throughout the entire cosmos and hence the stagnation of all physical activity. Entropy says, in effect: let things alone and they will go from bad to worse—iron will rust, flowers will wither, colors will fade, men will die, the sun will burn out, everything will degenerate.

Some thinkers try to escape the effects of Entropy by arguing that a living organism, like man, is a case of counter-entropy, or of increasing order. But a man's life is only a momentary flicker of order, and even it produces more disorder than it creates. To maintain life you must supply it with energy and raw materials from the environment. You must manufacture food, clothing, shelter; you must burn fossil

fuels to provide heat and cook food. All this results in an increase of disorder. Minutes after a man dies the cosmos is more disordered than before he was born.

Some thinkers feel that photosynthesis contradicts the hypothesis of increasing disorder, because plants can convert small molecules into large, highly organized molecules. But even here the gain is deceptive. You can't have photosynthesis without solar energy and to get solar energy you need nuclear fission reactions, which result in tremendous amounts of heat dissipation. The tiny increase in order represented by life on earth is purchased at the price of massive increases of disorder in the universe.

British astronomer Fred Hoyle was driven to believe in "continuous creation" (creation of matter out of nothing, also known as the Steady State Theory) by evidence similar to that for Entropy. You must believe in some kind of creation, he argues, because the only alternative to it would be to say that the material of the universe is infinitely old, a thesis impossible to hold when one looks at the problem of hydrogen in the universe. If the universe were infinitely old there would be no hydrogen left, because hydrogen is being steadily converted into helium throughout the universe and this conversion is a one-way process, that is, hydrogen can't be produced in any appreciable quantity through the breakdown of other elements. If matter were infinitely old, the universe couldn't consist chiefly of hydrogen as it does.³

What does all this imply, Agnos? It suggests that naturalism is a weak hypothesis. If the universe is running down, then it couldn't have existed forever. Naturalism can't explain why the universe is running down, except by postulating an unseen pure energy, the eternality and necessity of which are under grave suspicion if everything that arises out of it is temporal and contingent. I think you can see by now that the theistic hypothesis has powerful explanatory value. In the past, naturalism has recommended itself to people because they felt that nature needed no explanation; she was a self-fueling machine for all eternity. But it's difficult to hold this doctrine if Entropy is irreversible.

What can a naturalist say to this evidence for contingency? As always, he can fall back into scepticism or agnosticism. Or, he may argue that even though science has never observed energy being restored, it's possible that the present scheme of things with its entropic

3. See Chapter 6, originally entitled "The Expanding Universe," of Hoyle's book *The Nature of the Universe* (New York: Harper and Brothers, 1950). Even Bertrand Russell, writing in 1931, admitted that this evidence from contingency strongly supports the hypothesis that the cosmos had a beginning at some definite date (*The Scientific Outlook* [London: George Allen and Unwin, 1931], p. 122).

diffusion is only one stage in a huge cycle of expansion and contraction. Perhaps in a billion years we'll observe the process reversing itself. If he argues this way I can only ask: "Who is using faith now, the theist or the scientist?" All the evidence we have—all of it, mind you—points to a heat death for the universe. If you think this will someday be reversed, then your faith has not a single observation to support it. It's your duty to frame a worldview that explains *presently known facts*, not possible future facts. You can prove any theory on earth by appealing to future facts.

So, we have one argument for God; one cross-light is now burning. Do you see anything, Agnos? Perhaps not, but don't despair, we have more lights. Even with this one light, however, you can't deny that our belief has a good explanation of contingency. We feel that God, the Necessary Entity, the Eternal Something, explains how everything that could possibly not-be came to be. You can also appreciate why we love the story told in the third chapter of Exodus. When Yahweh told Moses to lead Israel out of Egypt, Moses complained by asking, "What will I tell the people your name is?" God replied:

I AM; that is who I am. Tell them that I AM has sent you to them. . . . You must tell the Israelites this, that it is JEHOVAH the God of their forefathers, the God of Abraham, the God of Isaac, the God of Jacob, who has sent you to them. This is my name for ever; this is my title in every generation. (Exod. 3:13-15, NEB)

The name Yahweh (or Jehovah) comes from the same Hebrew root as the phrase here translated "I AM." Thus the very name of the Hebrew-Christian God reflects his non-contingency, his everlasting quality. The great gulf that exists between Yahweh, the Eternal Being, and the created universe, the contingent being, is expressed poetically in Psalm 102:

Of old thou didst lay the foundation of the earth,
and the heavens are the work of thy hands.
They will perish, but thou dost endure;
they will all wear out like a garment.
Thou changest them like raiment, and they pass away;
but thou art the same, and thy years have no end.

How appropriate, also, that this God should first appear to Moses in a burning bush—a bush, however, that would not be consumed. In all the earth fire is a universal symbol for destruction, decay, mutability. Yahweh, however, comes to Moses in the form of a bush that will not burn up, thus illustrating his quality of immutability.

B. OBJECTIONS TO THE COSMOLOGICAL ARGUMENT.

1. Who made God? This is a very common retort to the Cosmological Argument. "If everything has a cause, then so must God." The person making this objection hasn't really grasped the argument yet. If God had to be made, then he would be, by definition, contingent; he couldn't be the cause of things that come into being and thus would not at all be what we mean by "God." Hence, to ask, "Who made God?" would be like asking, "Who made the unmakeable being?" To ask who made a necessary entity is to talk nonsense.

2. More serious is the objection that the Cosmological Argument commits the Fallacy of Composition, which is assuming that what's true of the part is necessarily true of the whole. For instance, it doesn't follow that just because every man has a mother that the whole human race has a mother. Likewise, it doesn't follow, says this objector, that nature as a whole is contingent, just because each of the parts of nature is contingent.

The key to the Fallacy of Composition lies in the word "necessarily." The fallacy is a warning not to pass uncritically from the parts to the whole, not to assume that what's true of the parts individually is necessarily true of the whole. But the fallacy doesn't say that it's *always* wrong to pass from the parts to the whole. Many times you can draw from the parts a legitimate inference regarding the whole. If each and every thread in a carpet is blue, then the carpet as a whole is blue. If all the parts of a machine are metal, then the whole machine is metal. If each and every part of the universe is contingent, then the whole of nature is contingent. The Cosmological Argument has the same form as these legitimate inferences from the parts regarding the whole.

3. More serious still is the objection brought by David Hume, who denied the idea of causality altogether. The Cosmological Argument assumes the concept that "every event has a cause" and if this is destroyed the argument will be weakened. Hume argued that causation is a psychological, not a metaphysical principle. Its origins lie in the human propensity to assume necessary connections when all we really see is contiguity and succession. Hard on the heels of Hume came Kant, who argued that causation is a category built into the mind as one of the many ways in which we order our experience. Kant argued that God transcends time and space and we therefore have no right to

apply the concept of causality to him. We can only use the concept of cause to order data drawn from the senses.⁴

How can you prove that causality applies to everything in the universe? You can't prove it deductively, but you can point out that if you jettison the idea you destroy not only metaphysics but science as well. When you attack causality you attack much of knowledge per se; without this principle the rational connection in much of learning falls to pieces. Of course, that wouldn't have bothered Hume, since he was a sceptic anyway.

Moreover, Hume contradicted himself when he attacked causation. He couldn't even discuss the issue without framing the question in this form: "What causes our notion of causation?" Now if Hume ends up denying causation, it makes you wonder if he didn't also deny this denial. If causation has no grounding in the nature of things, then you can't ask any question beginning with the words, "What is the cause of . . . ?"—not even a question about the origin of causation. As W. T. Jones says,

The argument that purports to prove that inductive inference cannot be rationally justified rests—covertly, to be sure—on inductive inferences about human nature and workings of the mind. Hume's critique of science cannot apply to the science of psychology, though there are no logical grounds for exempting this science from the general critique.⁵

Like all sceptics, Hume could have escaped this contradiction by simply being silent. But then there would have been no attack on causation to answer! So, it appears that we have either a non-existent attack on causation or a self-contradictory one. Either way, it's not a real attack.

4. The Logical Positivist argues that any metaphysical assertion of the existence of God is meaningless, since the assertion has no empirical situation in which it may be verified. In reply, I simply deny this allegation and affirm that empirical verification is certainly used in the Cosmological Argument.

Return, first, to the original syllogism: (1) if there is a contingent being then there is a necessary being; (2) there is a contingent being; (3) therefore, there is a necessary being. As is often true with a hypothetical syllogism, we use empirical evidence to prove the second

4. See Hume, *A Treatise on Human Nature*, ed. L. A. Selby-Bigge (Oxford: Clarendon Press, 1896), pp. 77ff.; Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith (London: Macmillan and Co., 1929), p. 44.

5. *History of Western Philosophy* (New York: Harcourt, Brace, and World, 1952), III, 348.

premise. We establish the first premise by logical analysis, using the Law of Contradiction, which even the Logical Positivists accept. We use empirical evidence (Entropy) to establish premise two, and thus the argument does have an empirical situation in which it may be verified.

I think the trouble comes because the Positivist wants a single limited experience to verify the argument. What he must realize is that *all* being, or at least all contingent being, is a part of the verifying experiment. Because all things in the world are contingent, all observations of them ultimately imply the existence of the Necessary Entity. If the statement, "all being in the world is contingent," is empirically meaningful, then so also is the statement, "a necessary being exists," because on the basis of the syllogism the second is the unavoidable conclusion drawn from the first.

5. The Cosmological Argument, in isolation, doesn't prove that God is personal, intelligent, or moral. The Necessary Entity could be an impersonal being, such as that taught by Spinoza and some mystic pantheists.

↙ This is a valid objection. The most that this argument proves, by itself, is that a Necessary Entity of some kind exists. He *could* be personal, intelligent, and moral, but all this argument proves, if sound, is that he is eternal, non-contingent. None of the proofs from natural theology can establish the perfect God of traditional religion. It will take several strands to make our rope, several cross-lights to illuminate our stage.

C. THE TELEOLOGICAL ARGUMENT.

The Cosmological Argument argues from the *fact* of a contingent universe. The Teleological or Design Argument argues from the *form* of the universe. If anything at all exists you can make the Cosmological Argument, but to make the Design Argument you must have two or more things in a *relation* to each other, a relation that suggests rational ordering by a purposive intelligence. As such, the Design Argument does not claim to prove the eternity of God, but rather the trait of intelligence.

↙ We should note at the outset, Agnos, that the Design Argument is only an inference; it derives its strength from the Method of Coherence. No theistic teleologist ever intended to affirm that he had found God directly and confirmed his existence. The teleologist assembles a mass of orderly phenomena or orderly events and then argues that the theory of a designer is coherent with the phenomena.

means that another hypothesis might explain the facts just as well. Each person must make his own evaluation of the evidence. The Design Argument is one of the oldest and most popular proofs for God, and, for some strange reason, even its most avid critics, Hume and Kant, expressed a certain respect for it.

It has been said that the Design Argument is more like a chain-armor than a chain. If you destroy a single link in the armor, we have thousands more to offer. You can only destroy the argument by attacking the armor as a whole. The thousands of links in the armor are the thousands of instances of (seeming) purposive arrangement among the elements and events of the universe.

Just about everywhere you turn in this cosmos you meet instances of natural law and order. In general, the universe seems to be basically friendly to life, mind, personality, and values. Life itself, for example, is a cosmic function. That is, a very complex arrangement of things both terrestrial and extra-terrestrial must be obtained before it can subsist. The earth must be just so far from the sun to achieve the optimum temperature; the atmosphere must be just the right combination of breathable gases; the crust of the earth must be just so thick; the ratio between land and water must be just right, and so on.* One could multiply such instances, as I have said, into the thousands, perhaps millions.

A good question comes to mind: Is this type of teleological explanation valid in areas other than theology? Does it work in more mundane matters? The answer is yes. We use teleological explanations in several important areas of life.

1. We use the teleological explanation when we infer the existence of other minds, the original leap of faith. We must use it, or else we have no right to believe that persons are anything more than mindless automata. You never experience directly the operations of a person's mind, his emotions, plans, intentions, or purposes; you experience directly only the external behavior of other people. If you deny the teleological principle you can never attribute personality or free will to persons, except yourself. That means that if you deny the principle in an argument with someone, you will be guilty of self-contradiction. ↙ If there is no mind or person behind the body, why argue? What are]

6. For more detailed treatments of such instances, see L. J. Hendersen, *The Finest of the Environment* (New York: Macmillan and Co., 1913); *The Order of Nature* (Cambridge, Mass.: Harvard University Press, 1917); A. Cressy Morrison, *Man Does Not Stand Alone* (Old Tappan, N.J.: Revell, 1944); Lecomte du Nouy, *Human Destiny* (New York: David McKay, 1947); William Paley, *Natural Theology*, ed. F. Ferré (New York: The Free Press, 1967).

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THE CASE FOR THE EXISTENCE OF GOD — PART I

by

Bert Thompson, Ph.D.

"Does God exist?" is, perhaps, one of the most challenging questions that a Christian could ever face. Do we have an answer to that question? We may believe in God, but do we know that He exists?

With this month's issue, we begin a series of articles on the existence of God. As Dr. Thompson shows in Part I, there is ample reason to believe that this Universe is the product of a supernatural creation by an intelligent Being.

On page 39, Trevor J. Major profiles Matthew Fontaine Maury—the founder of modern oceanography, and a man who never doubted the scientific accuracy of Scripture.

One of the most basic, and most fundamental, issues that can be considered by the human mind is the question, "Does God exist?" In the field of logic, there are principles—or as they are called more often, laws—that govern human thought processes and that are accepted as analytically true. One of these is the law of the excluded middle. When applied to objects, this law states that an object cannot both possess and not possess a certain trait or characteristic at the same time and in the same fashion. When applied to propositions, this law states that all precisely-stated propositions are either true or false; they cannot be both true and false at the same time and in the same fashion.

The statement, "God exists," is a precisely-stated proposition. Thus, it is either true or false. The simple fact is, either God exists or He does not. There is no middle ground. One cannot affirm logically both the existence and nonexistence of God. The atheist boldly states that God does not exist; the theist affirms just as boldly that

God does exist; the agnostic laments that there is not enough evidence to make a decision on the matter; and the skeptic doubts that God's existence can be proven with certainty. Who is correct? Does God exist or not?

The only way to answer this question, of course, is to seek out and examine the evidence. It is certainly reasonable to suggest that if there is a God, He would make available to us evidence adequate to the task of proving His existence. But does such evidence exist? And if it does, what is the nature of that evidence?

The theist advocates the view that evidence is available to prove conclusively that God does exist, and that this evidence is adequate to establish beyond reasonable doubt the exist-

Inside

Matthew Fontaine Maury
by Trevor J. Major

ence of God. However, when we employ the word "prove," we do not mean that God's existence can be demonstrated scientifically in the same fashion that one might prove that a sack of potatoes weighs ten pounds, or that a human heart has four distinct chambers within it. Such matters as the weight of a sack of vegetables, or the divisions within a muscle, are matters that may be verified empirically using the five senses. And while empirical evidence often is quite useful in establishing the validity of a case, it is not the sole means of arriving at proof. For example, legal authorities recognize the validity of a *prima facie* case, which is acknowledged to exist when adequate evidence is available to establish the presumption of a fact that, unless such fact can be refuted, legally stands proven (see Jackson, 1974, p. 13). It is the contention of the theist that there is a vast body of evidence that makes an impregnable *prima facie* case for the existence of God—a case that simply cannot be refuted. We would like to present here the *prima facie* case for the existence of God, and a portion of the evidence upon which that case is based.

Cause and Effect — The Cosmological Argument

Throughout human history, one of the most effective arguments for the existence of God has been the cosmological argument, which addresses the fact that the Universe (Cosmos) is here and therefore must be explained in some fashion. In his book, *Not A Chance*, R.C. Sproul observed:

Traditional philosophy argued for the existence of God on the foundation of the law of causality. The cosmological argument went from the presence of a cosmos back to a creator of the cosmos. It sought a rational answer to the question, "Why is there something rather

than nothing?" It sought a sufficient reason for a real world (1994, p. 169, emp. in orig.).

The Universe exists and is real. Atheists and agnostics not only acknowledge its existence, but admit that it is a grand effect (e.g., see Jastrow, 1977, pp. 19-21). If an entity cannot account for its own being (i.e., it is not sufficient to have caused itself), then it is said to be "contingent" because it is dependent upon something outside of itself to explain its existence. The Universe is a contingent entity, since it is inadequate to cause, or explain, its own existence. Sproul has noted: "Logic requires that if something exists contingently, it must have a cause. That is merely to say, if it is an effect it must have an antecedent cause" (1994, p. 172). Thus, since the Universe is a contingent effect, the obvious question becomes, "What caused the Universe?"

It is here that the law of cause and effect (also known as the law of causality) is strongly tied to the cosmological argument. Scientists, and philosophers of science, recognize laws as "reflecting actual regularities in nature" (Hull, 1974, p. 3). So far as scientific knowledge can attest, laws know no exceptions. This is certainly true of the law of cause and effect. It is, indisputably, the most universal, and most certain, of all scientific laws. Simply put, the law of causality states that every material effect must have an adequate antecedent cause. Just as the law of the excluded middle is analytically true, so the law of cause and effect is analytically true as well. Sproul addressed this when he wrote:

The statement "Every effect has an antecedent cause" is analytically true. To say that it is analytically or formally true is to say that it is true by definition or analysis. There is nothing in the predicate that is not already contained by resistless logic in the subject. It is like the statement, "A bachelor is an unmarried man" or "A triangle has three sides" or "Two plus two are four...." Cause and effect, though

distinct ideas, are inseparably bound together in rational discourse. It is meaningless to say that something is a cause if it yields no effect. It is likewise meaningless to say that something is an effect if it has no cause. A cause, by definition, must have an effect, or it is not a cause. An effect, by definition, must have a cause, or it is not an effect (1994, pp. 172,171 emp. in orig.).

Effects without adequate causes are unknown. Further, causes never occur subsequent to the effect. It is meaningless to speak of a cause following an effect, or an effect preceding a cause. In addition, the effect is never qualitatively superior to, or quantitatively greater than, the cause: This knowledge is responsible for our formulation of the law of causality in these words: Every material effect must have an adequate antecedent cause. The river did not turn muddy because the frog jumped in; the book did not fall from the table because the fly lighted on it. These are not adequate causes. For whatever effects we observe, we must postulate adequate antecedent causes—which brings us back to the original question: What caused the Universe?

There are but three possible answers to this question: (1) the Universe is eternal; it has always existed and will always exist; (2) the Universe is not eternal; rather, it created itself out of nothing; (3) the Universe is not eternal, and did not create itself out of nothing; rather, it was created by something (or Someone) anterior, and superior, to itself. These three options merit serious consideration.

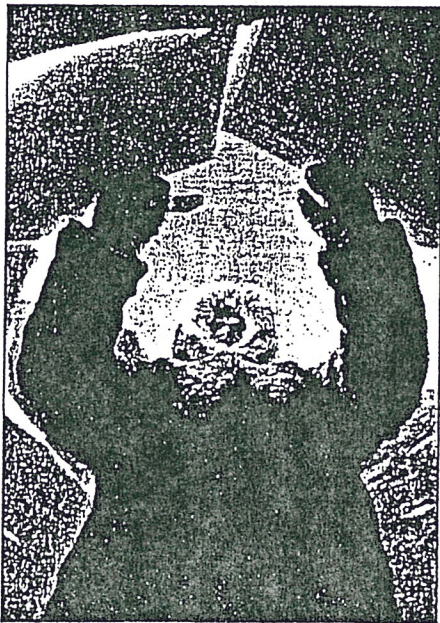
Is the Universe Eternal?

The most comfortable position for the person who does not believe in God is the idea that the Universe is eternal, because it avoids the problem of a beginning or ending, and thus the need for any "first cause" such as God. In fact, it was to avoid just such a problem that evolutionists Thomas Gold, Hermann Bondi, and Fred Hoyle developed the Steady State Theory. Information had

come to light that indicated the Universe was expanding. These scientists suggested that at points in space called "irtrons" hydrogen was coming into existence from nothing. As hydrogen atoms arrived, they had to "go" somewhere, and as they did, they displaced matter already in existence, causing the Universe to expand. Dr. Hoyle suggested that the atoms of gaseous hydrogen gradually condensed into clouds of virgin matter, that within these clouds new stars and galaxies formed, etc.

However, the Steady State Theory was doomed to failure, in part, because it violated one of the most fundamental laws of science—the first law of thermodynamics (also referred to as the law of the conservation of matter and/or energy), which states that neither matter nor energy may be created or destroyed in nature. Astronomer Robert Jastrow observed:

But the creation of matter out of nothing would violate a cherished concept in science—the principle of the conservation of matter and energy—which states that matter and energy can be neither created nor destroyed. Matter can be converted into energy, and vice versa, but the total amount of all matter and energy in the Universe must remain unchanged forever. It is difficult to accept a theory that violates such a firmly established scientific fact (1977, p. 32).



The Steady State Theory eventually was relegated to the relic heaps of history. Yet problems for those who advocated an eternal Universe continued to multiply because such a concept violated the second law of thermodynamics as well. Simply stated, the second law of thermodynamics dictates that as energy is employed to perform work, it is transformed from a usable to a nonusable form. The Universe is "running down" because energy is becoming less available for use. As Jastrow has remarked:

And concurrently there was a great deal of discussion about the fact that the second law of thermodynamics, applied to the Cosmos, in-



Only as a result of the most recent discoveries can we say with a fair degree of confidence that the world has not existed forever;... The lingering decline predicted by astronomers for the end of the world differs from the explosive conditions they have calculated for its birth, but the impact is the same; modern science denies an eternal existence to the Universe, either in the past or in the future (1977, pp. 19,30, emp. added).

The scientific evidence states clearly that the Universe had a beginning—something eternal things do not have. Nor do eternal things "run down," yet clearly the Universe is doing just that, as Dr. Jastrow has noted. As Henry Morris has commented, "The Second Law requires the universe to have had a beginning" (1974, p. 26). Indeed, it does. The Universe is now known not to be eternal.

Did the Universe Create Itself Out of Nothing?

In the past, it would have been practically impossible to find any reputable scientist who would be willing to advocate a self-created Universe. George Davis, a prominent physicist of the past generation, explained why when he wrote: "No material thing can create itself." Further, Dr. Davis affirmed that this statement "cannot be logically attacked on the

***"For every house is
built by some
man; but he that
built all things
is God."***

(Hebrews 3:4)

indicates that the Universe is running down like a clock. If it is running down, there must have been a time when it was fully wound up. Arthur Eddington, the most distinguished astronomer of his day, wrote: "If our views are right, somewhere between the beginning of time and the present day we must place the winding up of the universe." When that occurred, and Who or what wound up the Universe, were questions that bemused theologians, physicists and astronomers, particularly in the 1920's and 1930's (1978, pp. 48-49).

A year before making that admission, Dr. Jastrow made another important concession when he wrote:

basis of any knowledge available to us" (1958, p. 71). The Universe is the created, not the creator.

However, as surprising as it may seem, some in the scientific and philosophical communities have stepped forward to defend the option that the Universe simply created itself out of nothing. Edward P. Tryon, professor of physics at the City University of New York, wrote for example: "In 1973, I proposed that our Universe had been created spontaneously from nothing, as a result of established principles of physics. This proposal variously struck people as preposterous, enchanting, or both" (1984, p. 14). But the real push for the acceptance of a self-created Universe came as a result of an article published in the May 1984 issue of *Scientific American*. Under the title of "The Inflationary Universe," evolutionists Alan Guth and Paul Steinhardt wrote:

From a historical point of view, probably the most revolutionary aspect of the inflationary model is the notion that all the matter and energy in the observable universe may have emerged from almost nothing.... The inflationary model of the universe provides a possible mechanism by which the observed universe could have evolved from an infinitesimal region. It is then tempting to go one step further and speculate that the entire Universe evolved from literally nothing (1984, p. 128, emp. added).

Such ideas as those set forth by Tryon, Guth, Steinhardt, and others have set off a wave of controversy within the scientific community, as is evident from heated discussions at annual scientific meetings, articles published in refereed scientific journals, books written on a scholarly level, and even items appearing in popular science magazines. For example, in the summer 1994 edition of the *Skeptical Inquirer*, Ralph Estling of Great Brit-

ain wrote a stinging rebuke of the idea that the Universe created itself out of nothing. Estling suggested:

The problem emerges in science when scientists leave the realm of science and enter that of philosophy and metaphysics, too often grandiose names for mere personal opinion, untrammelled by empirical evidence or logical analysis, and wearing the mask of deep wisdom. And so they conjure us an entire Cosmos, or myriads of cosmoses, suddenly, inexplicably, causelessly leaping into being out of—out of Nothing Whatever, for no reason at all, and thereafter expanding faster than light into more Nothing

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Whatever.... They then intone equations and other ritual mathematical formulae and look upon it and pronounce it good. I do not think that what these cosmologists, these quantum theorists, these universe-makers, are doing is science. I can't help feeling that universes are notoriously disinclined to spring into being, ready-made, out of nothing (1994, 18[4]:430).

Estling's article provoked numerous letters to the editor of the *Skeptical Inquirer*, which were printed, with Estling's response, in the January/February 1995 issue. Estling wrote, in part: "All things begin with specula-

tion, science not excluded. But if no empirical evidence is eventually forthcoming, or can be forthcoming, all speculation is barren.... There is no evidence, so far, that the entire universe, observable and unobservable, emerged from a state of absolute Nothingness" (1995, 19[1]:69-70).

Estling is correct, of course. There is no evidence that would allow matter or energy simply to "pop into existence" of its own accord. This suggestion is in clear violation of the first law of thermodynamics. Furthermore, to suggest that the Universe created itself is to posit a self-contradictory position. Sproul addressed this when he wrote that what an atheist or agnostic

...deems possible for the world to do—come into being without a cause—is something no judicious philosopher would grant that even God could do. It is as formally and rationally impossible for God to come into being without a cause as it is for the world to do so.... For something to bring itself into being it must have the power of being within itself. It must at least have enough causal power to cause its own being. If it derives its being from some other source, then it clearly would not be either self-existent or self-created. It would be, plainly and simply, an effect. Of course, the problem is complicated by the other necessity we've labored so painstakingly to establish: It would have to have the causal power of being before it was. It would have to have the power of being before it had any being with which to exercise that power (1994, pp. 179,180).

Science is based on observation and reproducibility. But when pressed for the reproducible, empirical data that document their claim of a self-created Universe, scientists and philosophers are at a loss to produce those data. Perhaps this is why Alan Guth lamented: "In the end, I must admit that questions of plausibility are not logically determinable and depend somewhat on intuition" (1988, 11[2]: 76)—which is little more than a fancy

way of saying, "I certainly wish this were true, but I could not prove it to you if my life depended on it."

The eminent British astrophysicist, Stephen Hawking, put the matter in perspective when he wrote: "The new inflationary model is now dead as a scientific theory, although a lot of people do not seem to have heard of its demise and are still writing papers on it as if it were viable" (1988, p. 132, emp. added). The Universe did not create itself. Such an idea is absurd, philosophically and scientifically.

Was the Universe Created?

Either the Universe had a beginning, or it did not. But all available evidence indicates that the Universe did have a beginning. If the Universe had a beginning, it either had a cause or it did not. One thing we know assuredly, however: it is correct—logically and scientifically—to acknowledge that the Universe had a cause, because the Universe is an effect, and requires an adequate antecedent cause. Nothing causeless happens.

Since it is apparent that the Universe is not eternal, and since likewise it is apparent that the Universe could not have created itself, the only remaining alternative is that the Universe was created by something, or Someone, that: (a) existed before it, i.e., some eternal, uncaused First Cause; (b) is superior to it—since the created cannot be superior to the creator; and (c) is of a different nature, since the finite, contingent Universe of matter is unable to explain itself (see Jackson and Carroll, n.d., 2:98-154).

In connection with this, another important fact should be considered. If there had ever been a time when nothing existed, then there would be nothing now. It is a self-evident truth that nothing produces nothing. In view of this, since something exists now, it must follow logically that something has existed forever. As Sproul has remarked:

Indeed, reason demands that if something exists, either the world

or God (or anything else), then something must be self-existent.... There must be a self-existent being of some sort somewhere, or nothing would or could exist (1994, pp. 179,185 emp. in orig.).

Everything that exists can be classified as either matter (which includes energy), or mind. There is no third alternative. The theist's argument, then, is this:

1. Everything that exists is either matter or mind.
2. Something exists now, so something eternal must exist.
3. Therefore, either matter or mind is eternal.

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- A. Either matter or mind is eternal.
- B. Matter is not eternal, as per evidence cited above.
- C. Thus, it is mind that is eternal.

In the past, atheists suggested that the mind is nothing more than a function of the brain, which is matter; thus the mind and the brain are the same, and matter is all that exists. However, that viewpoint is no longer intellectually credible, as a result of the scientific experiments of British neurologist, Sir John Eccles. Dr. Eccles won the Nobel Prize for distinguishing that the mind is more than merely physi-

cal. He showed that the supplementary motor area of the brain may be fired by mere intention to do something, without the motor cortex of the brain (which controls muscle movements) operating. In effect, the mind is to the brain what a librarian is to a library. The former is not reducible to the latter. Eccles explained his methodology in *The Self and Its Brain*, co-authored with the renowned philosopher of science, Sir Karl Popper (see Popper and Eccles, 1977). In a discussion centering on Dr. Eccles' work, Norman Geisler discussed the concept of an eternal, all-knowing Mind.

Further, this infinite cause of all that is must be all-knowing. It must be knowing because knowing beings exist. I am a knowing being, and I know it.... But a cause can communicate to its effect only what it has to communicate. If the effect actually possesses some characteristic, then this characteristic is properly attributed to its cause. The cause cannot give what it does not have to give. If my mind or ability to know is received, then there must be Mind or Knower who gave it to me. The intellectual does not arise from the nonintellectual; something cannot arise from nothing (1976, p. 247).

From evidence such as that presented here, Robert Jastrow (an agnostic, by his own admission) was forced to conclude: "That there are what I or anyone would call supernatural forces at work is now, I think, a scientifically proven fact" (1982, p. 18). The evidence speaks clearly regarding the existence of a non-contingent, eternal, self-existent Mind that created this Universe and everything within it.

Conclusion

The law of cause and effect, and the cosmological argument based upon that law, have serious implications in every field of human endeavor. The Universe is here, and must have an adequate antecedent cause. In addressing this problem, R.L. Wysong commented:

Everyone concludes naturally and comfortably that highly ordered and designed items (machines, houses, etc.) owe existence to a designer. It is unnatural to conclude otherwise. But evolution asks us to break stride from what is natural to believe and then believe in that which is unnatural, unreasonable, and...unbelievable.... The basis for this departure from what is natural and reasonable to believe is not fact, observation, or experience but rather unreasonable extrapolations from abstract probabilities, mathematics, and philosophy (1976, p. 412, first ellipsis in orig.).

Dr. Wysong then presented an interesting historical case to illustrate his point. Some years ago, scientists were called to Great Britain to study orderly patterns of concentric rocks and holes—a find designated as Stonehenge. As studies progressed, it became apparent that these patterns had been designed specifically to allow certain astronomical predictions. Many questions (e.g., how ancient peoples were able to construct an astronomical observatory, how the data derived from their studies were used, etc.) remain unsolved. But one thing is known—the cause of Stonehenge was intelligent design.

Now, suggested Dr. Wysong, compare Stonehenge to the situation paralleling the origin of the Universe, and of life itself. We study life, observe its functions, contemplate its complexity (which defies duplication even by intelligent men with the most advanced methodology and technology), and what are we to conclude? Stonehenge might have been produced by the erosion of a mountain, or by catastrophic natural forces working in conjunction with meteorites to produce rock formations and concentric holes. But what scientist or philosopher would ever suggest such an idea?

No one could ever be convinced that Stonehenge “just happened” by accident, yet atheists and agnostics expect us to believe that this highly-ordered, well-designed Universe, and

the complicated life it contains, “just happened.” To accept such an idea is, to use Dr. Wysong’s words, “to break stride from what is natural to believe” because the conclusion is unreasonable, unwarranted, and unsupported by the facts at hand. The cause simply is not adequate to produce the effect.

The central message of the Cosmological Argument, and the law of cause and effect upon which it is based, is this: Every material effect must have an adequate antecedent cause. The Universe is here; intelligent life is here; morality is here; love is here. What is their adequate antecedent cause? Since the effect can never

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precede, or be greater than the cause, it stands to reason that the Cause of life must be a living Intelligence which Itself is both moral and loving. When the Bible records, “In the beginning, God...,” it makes known to us just such a First Cause. ⌘

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