

Can Science Indicate Creation?

The following text is an excerpt from Conclusion, Appendix I, Section 1 of “The Soul’s Upward Yearning, Clues to our Transcendent Nature from Experience and Reason, Volume II of the Quartet – Happiness, Suffering, and Transcendence” By Robert J. Spitzer, S.J., Ph.D. Copyrighted 2015 Ignatius Press, San Francisco.

We should begin by clarifying what science can tell us about a beginning of the universe and supernatural causation. First, unlike philosophy and metaphysics, science cannot *deductively* prove a creation or God. Natural science is concerned with the physical universe and with the regularities we call “laws of nature” obeyed by the phenomena within that universe. But God is not an object or phenomenon or regularity within the physical universe; so science cannot say anything about God.

Moreover, science is an empirical and inductive discipline. As such, science cannot be certain that it has considered all possible data relevant to a complete explanation of particular physical phenomena or the universe itself. It must always remain open to new data and discoveries which could alter its explanation of particular phenomena and the universe. This can be seen quite clearly in the movement from the Newtonian view of the universe to the Einsteinian one or from the Ptolemaic view of the solar system (geocentric) to the Copernican one (heliocentric).

So what *can* science tell us? It can identify, aggregate, and synthesize evidence indicating the finitude of past time in the universe (as we currently know it and conceive it could be). Science can also identify the exceedingly high improbability of the random occurrence of conditions necessary to sustain life in the universe (as we currently know it and conceive it could be).

Though scientific conclusions are subject to change in the light of new data, we should not let this possibility cause us to unnecessarily discount the validity of long-standing, persistent,

rigorously established theories. If we did this, we might discount the majority of all scientific theories. Thus, it is reasonable and responsible to attribute qualified truth value to such theories until such time as new data requires them to be modified.

The arguments that suggest the finitude of past time, i.e. that time had a beginning, are basically of two types:

- (a) arguments about the possible geometries of space-time and
- (b) arguments based on the Second Law of Thermodynamics (entropy).

Though the arguments we shall give may conceivably have loopholes, in the sense that cosmological models or scenarios may be found in the future to which these arguments don't apply, their persistence and applicability to a large number of existing cosmological models gives them respectable probative force. Until such time as they are shown to be invalid or inapplicable to empirically verifiable characteristics of our universe, they should be considered as justifying the conclusion that it is probable that the universe had a beginning.

When we speak of a beginning (a point prior to which there is no physical reality), we stand at the threshold of metaphysics (beyond physics). Even though science cannot be validly used to prove a metaphysical claim (such as, "a Creator or God exists"), it can be used (with the qualifications mentioned above) to show the high probability of a limit to past time *in* our universe, and even *in* physical reality itself. This *scientific* evidence for a beginning can be combined with a *metaphysical* premise (such as "from nothing, only nothing comes") to render a *metaphysical* conclusion that there must be *something* beyond physical reality which caused physical reality to exist (i.e. a transcendent cause).

There are other indications of supernatural causation arising out of contemporary cosmology besides the implications of a beginning -- namely the occurrence of several highly improbable cosmological conditions essential for the development and sustenance of *any* life form. These seemingly highly improbable conditions (which are sometimes called “cosmic coincidences” or “anthropic coincidences”) imply an element of supernatural fine-tuning if no satisfactory naturalistic explanation can be found.

The existence of a Creator need not rest on scientific evidence alone. There are sufficient rational grounds to affirm the existence of a Creator without modern science (see Chapter 3 – Lonergan’s proof of God and Appendix Two – a Contemporary Thomistic Proof of God).¹ The findings of modern science complement and corroborate these philosophical arguments. This complementarity and corroboration constitute a network of evidence. John Henry Newman termed such a network of evidence an “informal inference,” that is, reaching a conclusion by considering the accumulation of converging independently probable data sets. This allows for possible modification of one or more of the sets without significantly changing the general conclusion.

Using the foregoing methodological considerations as a foundation we may now respond to three naturalistic claims that have become widely accepted in popular culture:

1. Science can and has disproved the existence of a Creator.
2. Science currently knows everything about the universe sufficient to conclude that the universe does not need a Creator.
3. Science can give no evidence for a transcendent Creator.

¹ See the three proofs in Spitzer 2010 (a), Chapters Three through Five.

Let us begin with the first naturalistic claim (science can disprove a Creator). This claim is completely beyond the domain of science, because scientific evidence must be observational (whether it be directly observed, measured, or inferred from an experiment, etc.). This observational evidence is limited to our universe (and even to our event horizon within the universe). However, a *transcendent* Creator would have to be beyond the confines of our observational data (because it would be *beyond* our universe), and so science cannot *disprove* the existence of a transcendent Creator. An elaboration of the problem will make this clear.

It is much more difficult to disprove something by means of observation than to prove it. For example, if I want to prove the existence of an alien, I need to see only one, however, if I wish to *disprove* the existence of aliens by observational method, I would have to observe everything that there was to observe in the universe, know with certainty that all realities within the universe come within my experiential purview and observational powers, and then notice that it is not there. Thus, *disproving* by means of observation requires a comprehensive search and infallible certitude that all realities can be observed by the observer (which itself cannot be known through observation!).

The problem becomes much more challenging when we are speaking about a reality *outside* of the observable universe (such as a transcendent Creator, or God). This would entail observing everything there was to observe *outside* the universe, knowing that all realities outside the universe are in fact observable, and noticing that it is not there. This is evidently an impossible task – enough said. The claim that science can disprove God can never be sustained – because God necessarily lies beyond the methodological parameters of science.

Let us turn to the second naturalistic claim – namely that science now knows enough about the universe to know with certainty that the universe does not need a Creator.² This contention cannot be the case today or at any other time in the future, because science is an *inductive* discipline. This means that science proceeds from specific observational data to theories that coherently unify this data. Sometimes scientists are able to formulate “rigorously established” theories which are corroborated by several different data sets and a convergence of the mathematics intrinsic to those data sets (such as the Big Bang theory). Though rigorously established theories have probative value, they can never be known with infallible certitude, because scientists can *never* know what they do not know until they have discovered it. Theories are not theorems (proofs). They are only coherent unifications of *currently available* data (observations). Thus, scientists can never know whether their theories are *completely* explanatory (i.e. that they explain all relevant data in the universe). Inasmuch as the completeness of a theory cannot be known by observational evidence, it cannot be known by science, and for this reason science must remain open to further discoveries – always.³ Therefore, science can never know

² This is the contention of Stephen Hawking and Leonard Mlodinow. See the discussion on the Larry King Show between Stephen Hawking, Leonard Mlodinow, and myself.

(<http://www.youtube.com/watch?v=9AdKEHmqxA>).

³ The idea that M Theory is perfectly explanatory is doubly fallacious. Though M Theory *can* show how an eleven dimensional vibrating string configuration could give rise to all the kinds and spins of particles, no scientist can know that M Theory exhausts the whole of physical reality (for the reasons mentioned above). There is a second problem with this contention – namely, that we currently do not have any evidence for string theory (or M

with certainty that the universe does not need a Creator, because it cannot know with certainty that it has accounted for all data in the universe affecting the answer to this question.

Furthermore, this claim conflicts directly with the evidence for a creation of the universe discussed below (and in Chapter 3 and Appendix Two).

We proceed finally to the third naturalistic claim – namely, that science can give no evidence *for* a transcendent reality (such as a Creator or God). At first it might seem that if science *cannot* give evidence *against* a Creator, then it should not be able to give evidence *for* a Creator. However, recall from above that it is much easier to prove something with observational evidence than to disprove it, because disproving requires observing everything that is real, and noticing that a hypothetical entity is not there. Accomplishing this task for an entity outside the universe (outside of our observational horizon) is impossible. However, if one could show that the universe (and even physical reality itself) cannot explain its own existence, then it would be possible to give evidence for a reality beyond the universe. So is there any evidence *within* the universe that shows that the universe cannot explain its existence? As a matter of fact there is – a finite limit to past time or what is commonly called “a beginning.” As noted above, if science could show through observational evidence that the universe (and even physical reality itself) must have a beginning, then this datum could be combined with a metaphysical premise (showing that physical reality was absolutely nothing before the beginning) leading to the conclusion that the universe could not have moved itself from nothing to something before the

Theory), and it looks as if these theories may be inapplicable to some aspects of the observable universe. See Dine 2004; see Gordon 2010.

beginning. This conclusion requires that physical reality have a transcendent Creator to move it from nothing to something when it was nothing (prior to the beginning).

Well then, can science give evidence for a beginning of the universe, the beginning of a hypothetical multiverse, and even the beginning of physical reality itself? We now proceed to Sections II through IV for that answer.