

# *Does science make belief in God obsolete?*



*Keith Ward*

**No.**

Far from making belief in God obsolete, some interpretations of modern science provide positive reinforcement for belief in God.

The methodology of the natural sciences requires the formulation of fruitful questions about the nature of the world that can be answered by careful and repeatable observations. The use of controlled experiments aids the construction of illuminating schemes of classification or of causal hypotheses that explain why things are as they are. The development of mathematical techniques for describing and predicting observable regularities is usually an important part of a scientific approach to the world.

There are many different sorts of natural science, from the patient observations of botany and ethology to the more theory-laden hypotheses of quantum cosmology. What is their relation to belief in God? The answer depends on how one defines God. I shall adopt the rather minimal view that God is a non-physical being of consciousness and intelligence or wisdom, who creates the universe for the sake of distinctive values that the universe generates.

If there is such a God, it follows that a non-physical conscious intelligence is possible—so a materialist view that all existent things must be physical, or must have location in space-time and must be subject to the causal laws of such a space-time, must be false. It follows that the nature of the universe must be compatible with being the product of intelligent creation, and must contain states that are of distinctive value and that could not otherwise exist. And it follows that there is a form of non-physical causality—the whole physical universe only exists because it is the effect of such causality. So some facts about the universe (minimally, the fact that the universe exists as it does) must be such that they cannot be completely explained by physical causal laws alone.

All these claims are subject to dispute. Such disputes are as old as recorded human thought. But has the spectacular advance of the natural sciences added anything significant to them? Some writers have supposed that science rules out any non-physical beings or forms of causality. Auguste Comte propagated the nineteenth century idea of a progress of humanity through three states of thought—religious, metaphysical, and positive or scientific. The final stage supersedes the others. Thus science renders belief in God obsolete.

But quantum physicists have decisively rejected Comte's philosophical proposal that human sense-observations provide the ultimate truth about objective reality. They more nearly vindicate Kant's alternative proposal that our senses only reveal reality as it appears to us. Reality in itself is quite different, and is accessible only through mathematical descriptions that are increasingly removed from observation or pictorial imagination (how do you picture a probability-wave in Hilbert space?).

It is almost commonplace in physics to speak of many space-times, or of this space-time as a 10- or 11-dimensional reality that dissolves into topological foam below the Planck length. This is a long way from the sensationalism of Hume and Comte, and from the older materialism that insists on locating every possible being within this space-time. Some modern physicists routinely speak of realities beyond space-time (e.g., quantum fluctuations in a vacuum from which this space-time originates). And some physicists, such as Henry Stapp, Eugene Wigner, and John von Neumann, speak of consciousness as an ultimate and irreducible element of reality, the basis of the physical as we know it, not its unanticipated by-product.

It is simply untrue that modern physics rules out the possibility of non-physical entities. And it is untrue that science has established a set of inflexible laws so tightly constraining and universally dominating that they exclude the possibility of

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other forms, including perhaps non-physical forms, of causal influence that we may not be able to measure or predict. It is more accurate to say that fundamental laws of nature are seen by many physicists as approximations to an open, holistic and flexible reality, as we encounter it in relatively isolated and controlled conditions.

An important fact about God is that if God is a non-physical entity causally influencing the cosmos in non-physical ways, God's mode of causal influence is most unlikely to be law-governed, measurable, predictable, or publicly observable. To the extent that the sciences describe regular, measurable, predictable, controllable, and repeatable behavior, acts of God will be outside the scientific remit. But that does not mean they cannot occur.

Even opponents of intelligent creation (not "intelligent design," which in America has come to designate a view that specific scientific evidences of design can be found) often concede that the amazingly fine-tuned laws and constants of nature that lead to the existence of intelligent life look as if they are designed to do so. The appearance, they say, is deceptive. But it could be true, as Steven Weinberg has suggested, that intelligent life-forms like us could only exist in a cosmos with the fundamental constants this cosmos has, that intelligent life is somehow prefigured in the basic laws of the universe, and that the universe "knew we were coming," as Freeman Dyson has put it. If so, then the hypothesis of intelligent creation is a good one because it makes the existence of

intelligent life vastly more probable than the hypothesis that such life is a product of blind processes that may easily have been otherwise.

But this is not a scientific hypothesis. It posits no observationally confirmable entities, and produces no specific predictions. It is a philosophical hypothesis about the most adequate overall interpretation of a very wide set of data, including scientific data, but also including non-scientific data from history, personal experience, and morality. And that is the fundamental point. It is not science that renders belief in God obsolete. It is a strictly materialist interpretation of the world that renders belief in God obsolete, and which science is taken by some people to support. But science is more ambiguous than that, and modern scientific belief in the intelligibility and mathematical beauty of nature, and in the ultimately "veiled" nature of objective reality, can reasonably be taken as suggestive of an underlying cosmic intelligence. To that extent, science may make a certain sort of belief in God highly plausible.

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