

Editorial

What Does Physics Tell Us about God?

While an undergraduate in college I learned of a notable property of water, how it expands as it freezes, an unusual phenomenon that means that ice floats on water. Without this lowered density the emergence of complex life on earth would be difficult if not impossible. This surely seemed the mark of a beneficent Creator.

As a graduate student I learned more about water: how the two electron pairs in its outer shell filled two of the four vertices of a tetrahedron, whereas the remaining two electrons in the two other vertices did not completely fill the quantum slots. Thus, when two hydrogen atoms bonded with the oxygen they filled the angled vertices of the tetrahedron rather than lying at opposite sides of the oxygen atom. This asymmetry makes water a powerful solvent as well as a substance with high heat capacity and therefore a magnificent thermostatic regulator – both essential to biochemical processes. Furthermore, since hydrogen and oxygen rank number one and three respectively in cosmic abundances, water is guaranteed to be ubiquitous throughout the universe. Chalk up a few more points for the Creator!

As I gradually became aware, these aspects were only the tip of the iceberg (so to say!) of the design that makes life possible in the universe. Yet while the eyes of faith can readily see the designing hand of a Creator in the details of the cosmos, it is difficult to argue persuasively for theism from the structure of atoms or the fine tuning of physical and chemical constants. There just isn't a bullet-proof deductive argument for the existence of God from the evidences of physics. And even if there were, would it be more than a god of large numbers? It's not at all clear that physics could describe a god that would engender both awe and worship.

But this, I believe, is only part of the story.

Since the days of Galileo, science no longer marches ahead on the back of deductive proofs. Rather, it has constructed an ever-wider web of coherent understanding of the universe. And if coherency is the touchstone of science, I am not embarrassed to settle for coherency in a broader view of humanity's place in the cosmos. For me the goal is to achieve a coherent understanding of a universe that includes self-consciousness and self-contemplative beings – an understanding that is far from complete, yet one in which we can also hear the music. There are still great unanswered questions, of eschatology and theodicy, but a consistent view of the universe can include both the personal God who has communicated to humankind as well as the superintelligent Creator of an astonishingly fine-tuned and fit physical universe. Through the eyes of faith, physics tells us something after all about the Creator of the universe.

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