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He is the coauthor with Prof. Geraint Lewis of *A Fortunate Universe: Life in a Finely-Tuned Cosmos* and *The Cosmic Revolutionary's Handbook*, both published by Cambridge University Press. He has also published papers on the philosophy of science, and regularly engages in public outreach through public speaking, articles in the popular press, and social media.

He lives in Sydney, Australia with his wife and children. In his spare time, Dr. Barnes plays cricket, and has not given up hope of a call-up to the national team.

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Mind At the Foundation

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What's at the foundation? If we could dig down, through the crust of appearance, into the core of reality, what would we find?

Three answers that have been put forward are matter, mathematics, and mind.

1. **Matter** at the bottom: the stuff of physics – concrete, physical, mechanical.
2. **Mathematics** at the bottom: mathematical structures and physical structures are really the same thing, so everything is ultimately mathematical.
3. **Mind** at the bottom: the stuff of consciousness is the deepest level of reality – thoughts, experiences, reasons, decisions.

The idea of God is the idea of an ultimate mind. To take the idea of God seriously, we can't just add some extra furniture to the top floor of our worldview. Don't try to install a gratuitous sky fairy into the secret attic of a naturalistic universe. We have to renovate all the way down to the foundation.

But why take the idea of God seriously? Here's a simple reason.

The deepest laws of nature that we know about are elegant. If you know the right mathematical language, the laws can be stated with remarkable economy. For example, in the language of space and time (differential geometry), Einstein found that the law of gravity is beautifully concise, about as simple as it could be without being trivial. Gravity could have been complicated, but our universe keeps it simple.

Why? Why are the laws of nature simple, rather than complex?

- If **matter** is at the foundation, this question cannot be answered. Matter just is. Its fundamental properties have no deeper explanation. So, in particular, there cannot be an explanation for why matter obeys simple laws, rather than complex ones.
- If **mathematics** is at the foundation, this question again cannot be answered. If consistency is the only criterion, then there is no reason to expect simplicity over complexity. Every mathematical possibility is equally deserving of reality, and there are vastly more ways of being complex than simple. Mathematical consistency is blind to considerations of simplicity. Either we should expect complex laws, or else we don't know what to expect.
- If **mind** is at the foundation, then we get exactly what we need: a **reason**. Not every possibility needs to be realized, or is equally likely to be realized. Minds can imagine possibilities, and choose between them based on a reason, a plan, or a purpose. A mind that prefers simplicity is a plausible, understandable kind of mind. The complex possibilities for our universe weren't realized because the ultimate mind doesn't need complexity that doesn't serve a purpose. A mind can be selective, in a way that brute matter and merely consistent mathematics can never be.

The simplicity of reality, seen strikingly in the mathematical laws of the physical universe, needs an explanation that privileges simplicity. Matter and mathematical consistency don't. Mind does. That's a reason to take it seriously.