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Santiago Schnell is the Provost of Dartmouth and Professor of Mathematics at Dartmouth. He is also Professor of Biochemistry & Cell Biology and Professor of Biomedical Data Science in the Geisel School of Medicine at Dartmouth in Hanover, New Hampshire. Dr. Schnell earned his undergraduate degree in Biology from Universidad Simón Bolívar (Venezuela) and his doctorate in Mathematics from the University of Oxford (United Kingdom). He is renowned for the derivation of the Schnell–Mendoza equation, which provides a powerful and streamlined way to measure and estimate enzyme kinetic parameters in basic science and in the clinical laboratory. He is also recognized for having developed a standard model of the Polymerase Chain Reaction (PCR) for quantifying mRNA or DNA material in quantitative biology, medical diagnostics, and forensic science.

An internationally known theoretical and mathematical biologist, Dr. Schnell has received multiple awards in recognition of his research. He is a member of the American Academy of Sciences and Letters, a U.S. National Academy of Medicine Emerging Leader in Health and Medicine, and a recipient of the Arthur Winfree Prize, one of the premier awards in mathematical and theoretical biology. Dr. Schnell is a Fellow of the Royal Society of Chemistry, the American Association for the Advancement of Science, the Society for Mathematical Biology, the Latin American Academy of Sciences, and the Royal Society of Medicine.

God is the Mind of the Universe

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Quid est deus? Mens universi. Quid est deus? Quod vides totum et quod non vides totum. Sic demum magnitudo illi sua redditur, quia nihil maius cogitari potest, si solus est omnia, si opus suum et intra et extra tenet.

What is God? The Mind of the Universe. What is God? The whole that you see and the whole that you do not see. Thus, we return to him his magnitude, because we can think of nothing greater, if he alone is everything, if he sustains his work from within and from without.

Lucius Annaeus Seneca, *Quaestiones Naturales*. I, 13

Modern science operates on the principle that the universe is rationally structured and intelligible to the human mind. We scientists find that nature is not only ordered, but also organized. This discovery implies there are multiple elements that cooperate to form a single system.¹ The natural world consists of different levels of organization, each operating in synergy with the others. For example, the genetic expression of a protein inside a cell triggers the secretion of a chemical signal; the tissue responds to the chemical signal. These actions cause a physiological response that affects the entire organism.

Scientists describe these synergistic interactions as unbreakable laws: laws of nature. The power and order of these laws provoke reactions of admiration and awe. Though scientists know there are laws yet to be discovered, we believe they exist, not only because there is natural order, but also because the natural order is beautifully rendered. There is beauty at all levels – from the microscopic to the macroscopic, from the parts to the whole. Natural beauty is radiant, because there is integrity and harmony connecting the multiplicity of parts into an organic unit.² There is beauty in plants, animals, landscapes, stars, and planets. We wake to this sense of wonder that we are created beings, and not their creator.

From this point of view, we can refer to God as the “*Mind of the Universe*,” in the sense that God is the source of all its intelligibility.³ This is not a pantheistic God in the spirit of Seneca, but rather a God who created a rational, inclusive, and inspired aggregate in which humans — also rational and creative beings — are participants.⁴

Footnotes:

1. For review, I invite the reader to consult: Del Ratzsch and Jeffrey Koperski, *Teleological Arguments for God's Existence*, The Stanford Encyclopedia of Philosophy (Summer 2023 Edition), Edward N. Zalta & Uri Nodelman (eds.).
2. In the *Summa Theologiae*, Part I, Question 39, Article 8, Aquinas discusses three aspects of beauty: (1) integrity (perfection) which is connected to unity, (2) harmony (perfection), and (3) radiance (clarity/brightness).
3. God's thinking “The Universe” is its intelligibility.
4. Leon Kass argues from an evolutionary perspective that it makes sense that in a sensible world, creatures with an ability to sense the world would arise. An intelligible world would be a home for organisms like us that have the intellect to understand the world's intelligibility. See, Leon R. Kass, *The Beginning of Wisdom: Reading Genesis*, (New York: Free Press, 2003); and Leon R. Kass, “Science, Religion, and Humanity,” *Commentary* (April, 2007), pp. 36–48.