

# COURAGE IN THE COSMOS

Daniel Ray on the Boldness of Our Story

“When physicists work on a theory, they are not dealing directly with nature,” writes physicist Giovanni Vignale,

. . . but with an abstract model which they have already decided which aspects of reality must be absolutely retained, and which ones can be dismissed. Often, in creating this model, they make bold and quite implausible assumptions, which can only be validated by the consistency of the results. But, to take such bold steps one cannot rely on calculation alone: it takes passion, imagination, a sense of beauty – all things that we grasp with our whole personality, and definitely with our heart.<sup>1</sup>

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<sup>1</sup> Giovanni Vignale, *The Beautiful Invisible – Creativity, Imagination and Theoretical Physics* (Oxford: Oxford University Press, 2011), 3.

Through these bold and creative ventures, physicists have uncovered what seem like rather quixotic “rules” which govern the physical world we inhabit. For lack of a better term, most scientists call them “laws.” And the laws that have been discovered strongly suggest we only have a few pieces of the puzzle. For every law we know of, there might be countless more waiting to be discovered. And what a marvel it is to those who first discover such laws, incredible and counterintuitive though they may first appear.

It took not a little courage for someone like Johannes Kepler to stand firm in his Protestant convictions in the midst of a great deal of counter-reformation turmoil. It also took not a little courage to publish his three laws of planetary motions early in the 17<sup>th</sup> century. For his new “laws” ran wholly counter to the centuries-old Aristotelian-Ptolemaic concepts of crystal spheres and the perfectly circular orbits of the planets. But when you wrestle with the god of war and all its irascible contrary motions as Kepler did and emerge victorious from the strife, you press on with a courage and boldness that only such trials can give.

Kepler’s laws of planetary motion are now standard fare. But at the time they went against the grain of the accepted cosmological models. Planets

don't move in perfect circles? What? The heavens are not "perfect"? How can this be? As it was the case when the Apostles first heard the story that their Teacher had risen from the dead. The story the women related to them "appeared to them as nonsense and they would not believe."<sup>2</sup> Not a very flattering account of the men who would soon become the foundational authority of the Church.

For the scientifically minded among us, though, the Resurrection is often said to be a *violation* of the laws of physics. Dead people simply do not come back to life. Entropy, right? You spill your tea and shatter your cup, but no battalion of the king's mounted troops can put all that back together again the way the teacup rested in your hands just moments before. Nothing can go against the ever-increasing entropic flow toward chaos. When you're dead, you're dead. The Apostles were just like us in this regard. Never had they considered the possibility of someone returning from the dead. And they spent some three years with Jesus. Of course the women's story would appear to them as nonsense. Even when Jesus showed Himself alive to

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<sup>2</sup>Luke 24:11, NASB (and throughout).

people, Matthew records that some “worshiped *Him*; but some were doubtful.”<sup>3</sup>

But can we finally say that the Resurrection of Jesus of Nazareth from the garden tomb is a *violation* of the laws of nature? Rather might it be in accordance with a greater reality, a deeper law, wholly unknown to our common sense? Kepler’s ellipses, after all, certainly seemed to “violate” the allegedly known “laws” of crystal spheres and celestial perfection. The Resurrection may be a “bold and implausible assumption” to be sure, but it seems in the ever-increasing complexity and wonder that is regularly being discovered strongly suggests life and laws in the universe are stranger than anything we could imagine. The stuff of our everyday common experience is a great deal more uncommon than we ever have previously imagined. As theologian Leslie Newbigin puts it,

It is obvious that the story of the empty tomb cannot be fitted into our contemporary worldview, or indeed into any worldview except one of which it is the starting point. That is, indeed, the whole point. What happened on that day is, according to the Christian tradition,

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<sup>3</sup> Matt. 28:17.

only to be understood by analogy with what happened on the day the cosmos came into being. It is a boundary event, at the point where (as cosmologists tell us) the laws of physics cease to apply. It is the beginning of a new creation – as mysterious to human reason as the creation itself.<sup>4</sup>

As the Apostle Paul exclaims, “Oh, the depth of the riches both of the wisdom and knowledge of God! How unsearchable are His judgments and unfathomable His ways!”

Consider<sup>5</sup> the phenomenally enigmatic star KIC 8462852, known more colloquially as Tabby’s Star. It has been called the most mysterious star in the universe simply for the incredibly bizarre dimming of its light, as though some spectral apparition from the imagination of Edgar Allan Poe is repeatedly passing in front of it just to terrorize us. It might as well be a ghost, given all the other attempts at explanations that have been offered, including alien megastructures.<sup>6</sup> This stellar

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<sup>4</sup> Leslie Newbigin, *The Gospel in a Pluralist Society* (Grand Rapids: Eerdmans, 1989), 11.

<sup>5</sup> Consider that *consider* means to “think with the stars” – *considerial*.

<sup>6</sup> Hannah Osbourne, “KIC 8462852: Alien Megastructure Star Starts Dimming Again—What Does It Mean?” *Newsweek*. Published May 26, 2017. Accessed March 2, 2018,

mystery is challenging every fiber of astrophysicists' understanding regarding the nature of stars. Astronomers have taken on a Hamlet-like interrogation of this celestial spirit,

Angels and ministers of grace defend us!  
Be thou a spirit of health or goblin damn'd,  
Bring with thee airs from heaven or blasts from hell,  
Be thy intents wicked or charitable,  
Thou comest in such questionable shape  
That I will speak to thee: I'll call thee  
[Tabby's Star],  
King, father, royal Dane: O, answer me!

If human beings have their ultimate origin in the furnace of suns, as current conceptual models of our carbon suggest, then stars are our progenitors and Tabby's Star is a womb of nuclear wonder. Is it any wonder then that it occasionally goes dark? Is not that what happens in our light sometimes? Who knows? Do we ultimately come from the furnace of stars? That too seems rather disquieting. "O, answer me!" Is *that* really true?

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<http://www.newsweek.com/kic-8462852-alien-megastructure-dimming-astronomers-baffled-616346/>.

Richard Burton, in his *Anatomy of Melancholy*, though writing a few hundred years before the advent of space telescopes, nonetheless captures the imaginative frenzy Tabby's Star has generated in the astronomical community. From giant alien megastructures to enormous Saturn-like planets, to comets, dust, what could it be?

Methinks I hear, methinks I see  
Ghosts, goblins, fiends; my phantasy  
Presents a thousand ugly shapes,  
Headless bears, black men, and apes,  
Doleful outcries, and fearful sights,  
My sad and dismal soul affrights.  
All my griefs to this are jolly,  
None so damn'd as melancholy.<sup>7</sup>

Melancholy. It is the demented spectre that haunts human genius, a messenger of Satan sent to buffet and goad us toward the light. Its terrors often seem as though they will overwhelm us. We have not the requisite courage to face it many times. But what sort of light it is that gives our fainting hearts the courage to persevere. Like distant starlight that enlivens our sense of wonder,

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<sup>7</sup> Richard Burton, *The Anatomy of Melancholy* (New York: New York Review Books, 2001), 12.

Jesus's light shines in the darkness of our melancholy. Even as Christians I think we often simply do not comprehend it. It startles us, even frightens us not a little. When Jesus first bodily appeared to some of His disciples, Luke records that "they were startled and frightened and thought that they were seeing a spirit."<sup>8</sup> But His appearing is not meant to keep us in bondage to fear, but to give us love and power and a sound mind.

Yet despite the gift of a sound mind, I still find myself not a little timid in discussing the Resurrection with skeptics, especially when their faces are already twisted up in expressions of incredulity and scorn.

In *Pride and Prejudice*, Jane Austen sums it up quite well. Through a brief exchange between Mr. Bennet and his young daughter Mary, I see myself all too well like Ms. Bennet and Mr. Bennet as a skeptical atheist looking for a loophole in my defenses.

"What say you, Mary? For you are a young lady of deep reflection I know, and read great books, and make extracts."

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<sup>8</sup>Luke 24:11.

Mary wished to say something very sensible, but knew not how.<sup>9</sup>

Yep.

That is indeed how I often feel as a Christian. What can I say? What should I say? Especially when the question is put to me by someone who already finds the idea of Jesus rising from the dead ridiculous! It knocks you a little speechless. There is finally nothing “sensible” about a man rising from the dead. Perhaps Christian apologetics has done the Resurrection a disservice in attempting to make it into a “reasonable” proposition when in reality, we should be reminding ourselves and others how shocking and out of this world it really is. The dimming and brightening of the bright and morning star (Rev. 22:16) ought to be a little disquieting to our common sense and make us all good physicists who are open to the shocking possibilities and uncommon oddities of the deeper laws of the universe; laws that leave us at times speechless. Proclamation of the universe’s greatest wonder of all, the resurrection of the Lord Jesus, requires boldness and courageousness that is finally not our own.

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<sup>9</sup> Jane Austen, *Pride and Prejudice*, Project Gutenberg, March 10, 2018, accessed September 3, 2018, <http://www.gutenberg.org/files/1342/1342-h/1342-h.htm>.

“And they went out and fled from the tomb, for trembling and astonishment had gripped them; and they said nothing to anyone, for they were afraid.”<sup>10</sup>

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<sup>10</sup>Mark 16:8.

# Bibliography

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