

Effective Evangelism: JAE394

## WHAT THE SIZE OF THE COSMOS DOESN'T SAY ABOUT MANKIND

by Melissa Cain Travis

This article first appeared in the Effective Evangelism column of the CHRISTIAN RESEARCH JOURNAL, volume 39, number 04 (2016). For further information or to subscribe to the CHRISTIAN RESEARCH JOURNAL, go to: <http://www.equip.org/christian-research-journal/>.

---

Is humankind the crown of all creation or a temporary collection of particles inhabiting an unremarkable bit of rock? Pop science journalism, which is an increasingly influential voice in our culture, often suggests the latter, reinforcing the secular message that the Christian conception of man has been made obsolete by the findings of modern science.

Here's a case in point. Adam Frank, a theoretical and computational astrophysicist at the University of Rochester who describes himself as an "evangelist of science," recently gave an on-air audio essay entitled, "Does the Size of Space Freak You Out?" The essay was subsequently posted at the NPR blog, *13.7: Cosmos and Culture*.<sup>1</sup> Frank cheerfully affirmed that we are all inconsequential specks within the incomprehensible vastness of the universe and as such, even our greatest terrestrial concerns simply don't matter, since "the whole stage of our lives with all its immense joy and sorrow is really part of a much larger and much grander play."<sup>2</sup>

**Where Did This Idea Originate?** Frank is just one among a host of others who propagate an updated version of the so-called Copernican principle, which involves drawing philosophical conclusions about meaning and significance based on physical attributes of the universe. Nicolas Copernicus was not the first to suggest a heliocentric solar system, but the elegance and relative simplicity of his mathematical model made his name synonymous with that paradigm. Copernicanism was the main spark that, albeit nearly a century later, ignited the scientific revolution.

The removal of Earth from the center of the system of heavenly spheres was mistakenly seen by some as a demotion that effectively reduced the significance of mankind and cast serious doubt on the existence of God. Essentially, *geocentrism* was philosophically linked to *anthropocentrism*, and loss of the former was considered a loss of the latter. In other words, if mankind's home is not in a privileged position (the center around which all else revolves), then humans must not be central in importance, as Christianity teaches. Rather, they are...mediocre.

Since the scientific revolution, which brought empirical validation of heliocentrism, our knowledge of the universe has increased exponentially. Many scientists, philosophers, and science journalists assert that Earth's mediocrity is more evident than ever; our home is a rather typical planet, circling an ordinary star, in the suburban region of a galaxy that is just one of billions and billions of others. Moreover, the unimaginable massiveness of the universe means that there is more empty space out there than anything else. In addition to emphasizing man's relative smallness and the sparse homogeneity of space, proponents of the contemporary Copernican principle highlight the brevity of mankind's existence compared with the span of cosmic history. Our species has only been around for what amounts to the blink of an eye, they say; therefore, we must not be so arrogant as to think we are the focal point of the whole show.

Reflecting on the astrophysical data, Frank invokes the principle when he muses that "space is so crazy big that most of the day-to-day stuff that we sweat just doesn't matter" because we play only a miniscule part in the greater cosmic drama.<sup>3</sup> The implicit message is that, contrary to the teachings of Christianity, the world doesn't revolve around us, even in the metaphorical sense. Frank concludes his comments by saying that this state of affairs "doesn't have to freak us out. Instead it can remind us to do the best we can, to be careful, compassionate, give it all our effort and, then, step back."<sup>4</sup>

**How Are We to Respond?** As Christians working to evangelize a secular culture that has developed a religious reverence for modern science and its curators, it's important we realize that what we're dealing with are philosophical rather than scientific claims. We need to understand and be able to communicate how deeply flawed these kinds of arguments are. Chances are, individuals using these common talking points against Christian theism haven't thought them through very carefully. A few strategic questions can make for a gentle yet highly effective apologetic.

**Question 1: How is our material size relative to the universe indicative of our inherent value?** Sure, human beings are physically tiny by comparison, but that fact alone doesn't suggest insignificance. Value is not proportional to size. Would we say that a five-year-old is more valuable than a five-month-old and less valuable than a twenty-five-year-old? Of course not. The natural sciences, by definition, only can describe and compare the attributes of material phenomena; objective value (or the lack thereof) cannot be determined with a yardstick, telescope, microscope, or any other mode of scientific investigation. To say otherwise essentially begs the question in favor of materialism, the view that there is no reality beyond the physical, and thus human beings are nothing more than conglomerates of matter in motion. However, the brute fact of the enormous size discrepancy between us and the cosmos is not, in and of itself, evidence of materialism, as some seem to believe. If a human being is more than the sum of his or her physical parts and has a unique relationship to the Creator of all things—neither of which can be ruled out by empirical science—then the astrophysical data is entirely irrelevant.

**Question 2: What can our size and longevity truly tell us about the meaningfulness of our lives?** As with the issue of value, the question of whether or not the lives we live have objective meaning cannot be answered by physical measurements. Dr. Thomas Nagel, an atheist professor of philosophy at New York University, has recognized this. He acknowledges that “we are tiny specks in the infinite vastness of the cosmos; our lives are mere instants even on a geological time scale, let alone a cosmic one; we will all be dead any minute,” but what has this to do with the question of meaning?<sup>5</sup> “Suppose we lived forever,” Nagel argues. “Would not a life that is absurd if it lasts seventy years be infinitely absurd if it lasted through eternity? And if our lives are absurd given our present size, why would they be any less absurd if we filled the universe (either because we were larger or because the universe was smaller)?” Nagel rightly contends that measures of physical and temporal magnitude cannot tip the scales one way or the other when it comes to objective meaning versus absurdity—an utter lack of meaning.

**Question 3: If, on the cosmic scale, humans are insignificant, and the events of our lives ultimately do not matter, why should we behave in any certain way?** How, exactly, does meaninglessness inspire us to do or be anything in particular? Under the materialist paradigm, which Frank seems to be endorsing, there simply are no objective moral imperatives. Why *should* we do our best? Why *should* we be compassionate, kind, tolerant, and fair? Wouldn't it be much more rational to live solely for the maximization of our own pleasures and the avoidance of discomfort? If the materialist is correct that we are nothing more than finite specks of matter in motion, then any action we carry

out is itself cosmically insignificant, whether that act happens to be premeditated murder or ordering a pizza. Either one is comparable to tossing a single grain of salt into the ocean.

**Question 4: If a worldview contains a self-contradiction, how can it be true?** If materialism is reality, there are no such things as “good” and “evil” or “right” and “wrong.” There are only those things we subjectively like or dislike. The most we can do is make-believe meaning and pretend that some things in human life truly matter in the grand scheme of things. However, it is extraordinarily rare to encounter materialists who actually embrace the logical consequences of their worldview. For example, Richard Dawkins has remarked that when it comes to the physical world, “there is, at bottom, no design, no purpose, no evil, no good; nothing but blind, pitiless indifference,” yet he continues to pen books and articles in which he vehemently argues against the alleged evils of religion and for our moral obligation to promote accurate science education.<sup>6</sup> Do you see the contradiction? In conversation with someone who affirms materialism, we need only to identify *one thing* they take to be objectively valuable, right, or wrong in order to demonstrate the obvious inconsistency. Perhaps it is their affirmation that human life has real value, that homophobia and racism are always and everywhere immoral, or that we should never harm another person for the fun of it. Point out that such claims simply cannot be reconciled logically with materialism, and that for a worldview to be true, it cannot contradict itself.

It certainly boggles the human mind to try to conceive of the sheer enormity of our universe and how comparatively small we are. Nevertheless, Christianity teaches that mankind is cosmically significant *by virtue of the kind of thing he is*, a creature made in the image of God, possessed of an immortal soul, with life purposes that transcend the material and temporal. What we are and what we do matters, and it matters eternally. As the psalmist remarked, “When I look at your heavens, the work of your fingers, the moon and the stars, which you have set in place, what is man that you are mindful of him, and the son of man that you care for him? Yet you have made him a little lower than the heavenly beings and crowned him with glory and honor.”<sup>7</sup>

—Melissa Cain Travis

**Melissa Cain Travis**, MA (science and religion, Biola University), is currently pursuing a PhD in humanities with an emphasis in the history and philosophy of science. She serves as assistant professor of apologetics at Houston Baptist University.

## NOTES

- 1 The number 13.7 in the name is a reference to the estimated age of the cosmos, measured in billions of years.
- 2 Adam Frank, "Does the Size of Space Freak You Out?" NPR, *13.7: Cosmos and Culture*, June 1, 2016, <http://www.npr.org/sections/13.7/2016/06/01/480335728/bad-day-anastrophysicist-explains-why-it-just-doesnt-matter>.
- 3 Ibid.
- 4 Frank.
- 5 "Sixty-Eighth Annual Meeting of the American Philosophical Association Eastern Division," *The Journal of Philosophy* 68, 20 (October 21, 1971): 717.
- 6 Richard Dawkins, *River out of Eden* (New York: Basic Books, 1995), 133.
- 7 Psalm 8:3–5, ESV.