

CLOSING ADDRESS

Folding up the questions at last

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As I listened to the various talks and the discussions that followed them, the line that kept running through my head was from Psalm 8: “What is mankind that you should be mindful of them, human beings that you care for them?”¹ In many ways, this is the question that we have danced around and through and with over these last three days. Not just what is life, but what is human life?

What is life that *we* should be mindful of?

1 Psalm 8:4 NRSVCE

I'M HUNTING FOR the pearls that have grown not from the points where we are consonant with one another, but from the places where we do not agree, where a particle of sand or bit of shell provokes us to (perhaps) rework our thinking. In her essay, "A View from the Divide," poet and biologist Allison Hawthorne Deming suggests that the productive tension that results from science and poetry looking to each other for language, metaphor and myth depends on the very existence of such a divide, on poetry and science retaining their integrity.²

We have not sought here to collapse C. P. Snow's two cultures into a single monolith, but to embrace what we can find from traveling between the theological, scientific, philosophical spaces that we each inhabit. Or as Deming eloquently puts it, "much is to be gained when scientists raid the evocative techniques of literature and when poets raid the language and mythology of scientists."³ For example, Stephen Meredith's use of the image of the two dogs and the observer who would know instantly which dog was alive and which not, taken from James Joyce, provided a memorable touchstone

What have we accomplished in these conversations across the various divides? We have in some sense been engaged in an exploration of intellectual origami. Consider the work of MIT-based artist Brian Chan, who folds paper into intricate representations of living creatures.⁴ Using only the linear folds allowed by origami, he can bring hermit crabs and lizards and anime characters to live from a simple square of paper. We can see the map of the folds on the flat sheet of paper and the final creation, but we still may not be able to understand how we move from the literal explanation—the flattened out pattern—of the creature to the fully formed object.

While the divide is critical, I believe, we must also recognize that we are inhabiting a single space. It is not, to quote Deming again, that "[s]cientists are the cold-hearted dissectors of all that is beautiful" while "poets [are] the lunatic heirs to pagan forces."⁵ We are all engaged with the same base

2 Alice H. Deming, "Science and Poetry: A View from the Divide," *Creative Nonfiction* 11, no. 11 (Fall 1998): 11–29.

3 Deming, "Science and Poetry," 16.

4 See web.mit.edu/chosetec/www/origami/.

5 Alice H. Deming, "Science and Poetry," 13.

material, beauty matters to scientists and poets engage with “pearl-necklace viruses, [and] winged protozoans.”⁶ The artist M.C. Escher has an etching of ants crawling on a Möbius strip. While the ants—and we—might think we are on opposite sides or exploring different spaces, there is but one side, one space, that we are moving on. This is a figure that resists explanations, that literally cannot be flattened out. We are dealing in mysteries, and mystery always serves to draw us deeper into the questions, both in faith and science.

While our goal in this conference was to tackle the question “what is life?” I want to remind us of Pope Francis’s words in *Laudato Si’*: “our goal is not to amass information or to satisfy curiosity, but rather to become painfully aware, to dare to turn what is happening to the world in your own personal suffering and asked to discover what each of us can do about it.”⁷ The goal is not so much to create an explanation, to flatten all the dimensions into a single easily grasped plan, but to remain always cognizant of the implications of both the question and the answers that we sketch. These are key questions we are asking with consequences in the real world, not just in our laboratories and philosophical and theological spaces. There is a pastor who is advocating lining up LGBTQ people and shooting them in the head, because he does not consider them human. Iceland considers the lives of people with Down’s Syndrome as not worth living. We ought to be painfully aware of the question in our work.

Writing about the breadth of God’s Incarnation across the universe, theologian Paul Tillich notes “Incarnation is unique for the special group in which it happens, but it is not unique in the sense that other singular incarnations or other unique worlds are excluded. Man cannot claim to occupy the only possible place for incarnation.”⁸ While Tillich is addressing the possibility of multiple incarnations for extraterrestrials, there is an underlying call to respect the diversity of incarnation on this earth. As

6 Marilyn Nelson Waniek, “Dusting,” in *Magnificat* (Baton Rouge: Louisiana State University Press, 1994), 18.

7 Francis I, *Laudato Si’* [Encyclical Letter on Care for Our Common Home], sec. 19, www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html.

8 Paul Tillich, *Systematic Theology*, vol. 2 (Chicago: University of Chicago Press, 1957), 95f.

Brendan Sammon pointed out, if we believe God dwells within us, then God dwells within us no matter what we are and how we came to be here.

I remind us that boundaries are softer than we think. In my own field of quantum mechanics you can show that if you drop a ball on a tabletop there is some possibility that the ball will penetrate into the tabletop. Perhaps more disquieting, if you drop the ball over the edge there is a non-zero possibility it will bounce back from a top that is not there. The math is clear, the phenomenon has been observed, but it suggests that in some circumstances edges are not as sharp nor as clear as we imagine them to be. As both Noreen Herzfeld and Anne Foerst reminded us, when we are unclear about the boundaries between humans and machines, not only can we treat machines as humans but we can treat humans as machines.

Noreen Herzfeld pointed us to St. Benedict's rule "regard all the vessels of the monastery and all its substance, as if they were sacred vessels of the altar."⁹ We ought to resist the desire for firm answers and sharp boundaries when it comes to deciding what is a human life. I would argue that we should consider the space between life and not-life as a sacred space, a place to tread lightly. We ought to offer grace and mercy to the organisms sitting in these liminal spaces, handling them as if they were as sacred as our own lives.

Finally, I want to remind us that science is more than the rational, the objective, the observable. Metaphor is not simply an adjunct to science, burnishing her language and offering on-ramps for the non-specialist. These philosophical and theological endeavors are, I believe, fundamental to science, as they provide the burning embers that all the hard-won equations and experiments breathe into flame. Poet Simon Armitage points out that we don't go to the moon because of the cold, hard equations: we go because we are on fire to know the universe more intimately. In the end, love is what moves both physicists and philosophers and theologians.¹⁰

9 St. Benedict of Nursia, *The Holy Rule of St. Benedict*, trans. Leonard J. Doyle (Collegeville, MN: Liturgical Press, 1948), Ch. 13.

10 Simon Armitage, "Modeling the Universe: Poetry, Science, and the Art of Metaphor," in *Contemporary Poetry and Contemporary Science*, ed. Robert Crawford (New York: Oxford Univ. Press, 2006).

I will close with a snippet from astrophysicist and poet Rebecca Elson's poem, "Antidotes to Fear of Death."

I eat the stars.
Those nights, lying on my back,
I suck them from the quenching dark
until they are all, all inside me, pepper hot and sharp.¹¹

We have sucked in a lot of questions, and I hope that they will remain "pepper hot and sharp" as we continue our work.

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11 Rebecca Elson, "Antidotes to Fear of Death," in *A Responsibility to Awe* (Carcanet Classics, 2018), 61.