Let’s play an imagination game. Consider these situations. How would you respond? How would you build bridges across these significant divides?

1. Student after a university human evolution class asks: “So were Adam and Eve Australopithecines?”
2. A colleague posts about a STEM job search at their [religiously affiliated] institution on social media: “Apply! Our department is fun and we get along! The Catholic Jesuit stuff doesn’t affect what we do or teach. At all.”
3. Question at a museum talk: “I’m all for clean water and air, sure, but haven’t the earth’s resources been given to us to use as we see fit?”
4. Comment in an online forum: “Evolution is racist ideology. Scientists want us to believe that some people are less evolved than others, but I know that we are all created in God’s image.”
5. Question at a meeting with tribal representatives: “Previous scientists’ work with us has been exploitative and harmful to our people and to our sacred lands. Why should we allow your research to proceed?”
6. Question from [a] high-school age student in a classroom engagement: “If what science says about the origins of the universe and the origins of life are true, doesn’t that mean that everything is without purpose?”
7. Question at a public talk: “Who decides if your work with human remains is ethical? How do you respect the religious beliefs of the dead?”
8. Question from a 2nd grader in a classroom engagement: “Do animals have souls?”

These are the scenarios to which Robert O’Malley, Project Director for the Dialogue on Science, Ethics, and Religion (DoSER) invites us to consider at this year’s AAAS Annual Meeting. The American Association for the Advancement of Science (AAAS) is the world’s largest association of scientists. DoSER is a program within AAAS that has been fostering dialogues between scientific and religious communities about science, technology and society since 1995.

In the audience was Dr. Arthur Hunt, professor of University of Kentucky College of Agriculture, Food and Environment, who participated in the workshop and commented that,

“some of these questions/scenarios deserve more introspection than others. Collectively, they help to illustrate the challenges when it comes to education and engagement. Some are borne of misunderstanding (of science and also theology) that is hard to grapple with, and others are almost hostile towards science. On the other hand, they illustrate nicely the challenges when it comes to science-faith engagement. Rising up to these challenges is important for many reasons. For example, as was learned in the AAAS session entitled “How Thinking About Religion Can Increase Racial and Gender Diversity in Science”, large numbers of Black and Hispanic scientists are Christians, and there is concern amongst these scientists about anti-religion biases in the STEM ecosystem. In addition, religion is central to many communities that are underrepresented in STEM fields. If we are to get to a more diverse STEM workforce, then the scientific community is going to have to come to grips with these issues.”

The session referred to by Hunt was delivered by other researchers including Dr. Elaine Howard Ecklund, whom we interviewed in our podcast.

The entire meeting took place on a virtual platform last week, featuring speakers across the disciplines of science from around the world. The topic of science communication and engagement with religious publics was part of the program because

“we believe most scientists and educators, whether completely secular or spiritual or religious in mindset, really do want to be inclusive and ensure that everyone feels welcome to participate in science discourse and science learning.”

said O’Malley, in an email to Peaceful Science.
“If someone is coming to our workshop they probably already understand on some level that religion and spirituality is relevant to good science pedagogy, or even for just talking about science with family and friends and others, and are looking for some insights or guidance on how to do this well.”

He emphasized the need for scientists to be strategic, be respectful, and be human in their engagement with the faith communities. Scientists ought to be intentional and considerate about who they’re interacting with; affirming people’s dignity by being respectful; be ready to listen unassumingly and practice cultural humility, as well as to acknowledge that science is after all a very human endeavour, O’Malley explained.

“Identity, values and culture matter in science just as they do for all human endeavors.”

The public discourse concerning faith and science will put us in challenging circumstances. One way to prepare ourselves for such encounters is to engage in a mindset approach to hypothetical scenarios. That’s where his imagination game comes in.

There is, of course, no one single right answer to these questions, but perhaps there are some really wrong answers.

“The idea is not to come up with the perfect pre-scripted answer, but to get a chance to try out this mindset approach with fellow attendees in a collaborative way.”

O’Malley said. Rather, these scenarios are meant to promote ongoing conversation and encourage scientists to consider the nuances that come with engaging in this intersection.

He shared about a particular challenging scenario that he encountered while being a Teaching Assistant for a biological anthropology class. At the end of the class, one student came up to him and asked, “Were Adam and Eve Australopithecines?” (the first question in the imagination game). He responded in a way that considered both the scientific knowledge of the time and the biblical account in Genesis that explicitly talks about human beings and not something else.

“Whatever the Australopithecines were, we can say with confidence that they were not modern humans, and we can also say they were not exactly like any nonhuman ape living today. Exactly what their relationship is to modern humans, or to other apes in the past or present, is something scientists in the field are very interested in, and in fact is one of the central questions of the class.”

O’Malley also explained that while topics like what it means to be a “modern human” will be explored, it wouldn’t necessarily be resolved.

“I want to answer in a way that I believe is accurate from a scientific perspective, that acknowledges and respects where this person is coming from, and tries to make them feel comfortable to continue in the class.” O’Malley explained. “Of course, my answer at the time isn’t the only constructive way to respond to this question but I think [it] embodies the core principles well.”

Apart from teaching, O’Malley himself was engaged in scientific research in the field of evolutionary biology, anthropology and zoology. When asked about how his own interaction with faith affected the way he led the DoSER initiative, O’Malley said,

“I was raised Catholic. Though I don’t identify as such now, I believe this had a real and positive impact on my development as a person and how I think about science engagement today. For example, whenever I’ve heard science discussed in Catholic contexts, both as a kid growing up and as an adult, including when I’ve done guest lectures at seminaries and such about my research, it’s generally with a lot of enthusiasm...something that can enrich faith and spirituality rather than necessarily be in conflict. That feels like a healthy and constructive approach to me.”

The workshop ends with a very important takeaway. Regardless of having a completely secular, or religious mindset towards science, we cannot underplay the fact that we live in a very diverse ecosystem. To some, the only way to promote this sense of awareness is by telling their own stories and actively participating in community engagements. In order to be inclusive in this ecosystem, we need to take into account the person’s whole self, that is, their identity, values, culture, and religion. This seems to be the only way forward for nurturing a diverse scientific ecosystem.

So let’s play the imagination game. How would you respond to each of these scenarios?

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