

An Interview with Holmes Rolston III

Conducted by Sam Libenson and Justin Wong

The Harvard Review of Philosophy (HRP): We're wondering how you, as one of the pioneers in the field of environmental philosophy, would define this field. The name "environmental philosophy" clearly points to a specific subject, but there seems to be something unique about the way environmental philosophy understands and values objects of nature and the environment. Is there a way in which environmental philosophy is distinct from other philosophical traditions, in terms of its methodology or conclusions?

Professor Holmes Rolston III (HR): Well, I would say that environmental ethics is about the appropriate caring and respect for wonderland Earth and all its inhabitants, each flourishing according to its own nature.

HRP: And how would you describe the "wonderland Earth"? This is a term that comes up often in your scholarship. What does Earth as a wonderland mean to you?

HR: Earth is an extremely interesting planet, because of its profusion of life over many millennia. We might hope that the same has happened elsewhere in the universe, but so far, we don't know that. And in that sense, Earth is a marvelously distinct planet because of the richness of life that has evolved here. I call that a wonderland. Let me toss that question back to you. Do you think Earth is a wonderland?

HRP: I think probably. It intuitively feels like one.

HR: Is Earth more of a wonderland than the moon?

HRP: Intuitively, I would certainly say yes—there is something about the life on Earth.

HR: Is Earth more of a wonderland than the sun?

HRP: I would say so.

HR: Can you name any other place in the universe that might be more of a wonderland than this Earth on which we live?

HRP: I can't. Nothing comes to mind.

HR: Okay. We finished this conversation.

Holmes Rolston III is University Distinguished Professor Emeritus at Colorado State University. He gave Gifford Lectures at Edinburgh (1997–1998) and was 2003 Templeton Prize laureate. Rolston has been a distinguished lecturer on seven continents.

HRP: How do you define life on Earth? Is there a clear definition? Do you think even definitions are the right approach to understanding life?

HR: Life contains information encoded, as we know, in genes. And that coding is information about how to construct and maintain an ongoing form of life. You have that information in your genes. But each of the millions of other creatures of life have had that coded in their genes. We don't know yet how many sorts of creatures there have been over the many millennia. We don't know how many insects there have been, or how to count microbes, but by all accounts, there have been somewhere between five and ten billion different forms of life on Earth since Earth came into being. That strikes me as a marvelous adventure. Probably more marvelous than any other adventure anywhere else in the universe.

HRP: How do you think the marvel of life can be captured within environmental philosophy as an academic discipline? It seems that discussions in analytical philosophy are sometimes really dry. Life does not seem very lively there, and it's often theorized and abstract.

HR: Well, environmental ethics is not dry and boring. Maybe analytic philosophy gets dry and boring; I have a friend who does various kinds of logic, and I find what he does, after a while, dry and boring. But environmental philosophy is different. Why? Because it's about life. It's about living. It's about keeping on living. It's about caring, as well as analysis. That makes it distinctive and that keeps it exciting.

HRP: On another note, we know that you have a history of talking about religion and the melding of your environmental philosophy and religion. In a talk entitled "From Shenandoah to the Mountain West," you mentioned that you were heavily influenced by religion. How do you integrate that into your environmental philosophy? Do you see a distinction between religion and philosophy at all?

HR: Well we just said that there can be forms of analytic philosophy that can get to be dry and boring, and maybe there can be forms of theology that can get to be dry and boring. But if they do, you are missing what religion is all about. Religion is about finding the deep sense of meaning to life. If you haven't done that, you have not gained the principal insights of a religious view. People go to religion often to find the meaning of life.

Now, part of the meaning of life can be found in the sciences. That's why I have invested a lot of time in learning the sciences. I know the biological sciences better, I think, than almost any other philosopher you are going to meet. So, yes, you need science as part of an understanding of the meaning to life. But when you begin to look for the deeper sense of meaning, I don't think science can take you there. If you want to know, "What is my life worth sacrificing for?" and "What am I willing to die for?" you're not going to get that answer from a scientist, but you will get that kind of answer in religion: say, if you are a follower of Jesus Christ. That is to say, there is a certain sense of redemption that comes with religious beliefs that's missing from scientific beliefs.

HRP: How do you think religion is integrated into the project of environmental philosophy, specifically?

HR: Religion and environmental philosophy have to go deep down. Intentionally, I did not say "way up," and I avoided using the term "transcendence." You can get transcendence by going deep down, as well as by going way up. I don't think you will get

to some heaven by getting in a rocket ship and taking off—you will just get into the stratosphere and get into outer space. Taking a plunge to the bottom of things is how I would describe what religion can help environmental ethics do that science cannot. Now of course when we take a plunge to the bottom of things, we get to things like quarks and all. We hardly know what quarks are. To go back to the boring part, we have mathematical systems that help us describe these quarks. But we don't have any descriptive imagery that describes these quarks. The mathematics takes us beyond our capacities to visualize. And yet we believe that we are in some sense at the bottom of things, at the depth of things. And now we think religion may give us a belief, or hope that, at the deepest ranges of things, there is meaning and truth in life.

HRP: Having invested a lot of time to understand the science, how do you think science and religion go together?

HR: Well, I do think they go together. I've studied a lot of science because it's important to know it. I once taught a class in science and religion and said to the students at the beginning, "I'm glad you took this class, because science and religion are the two most important things in the world." A student's hand went up at the back of class. The student said, "No professor, you're wrong." So, I said, "Well, what are the two most important things, and why?" The student said, "Sex and money." The student stayed in class and seemed to be interested in taking it. I wish I had asked him at the end of class, what the two most important things are. Maybe I had changed his mind.

HRP: You've had a long career as an environmental thinker. What do you think have been the biggest changes in approaches to environmental philosophy, environmental ethics or, broadly, philosophy?

HR: Well, there have been big changes, not all of which I approved of. My campus, Colorado State University, prides itself on being green and gold. Gold is the color of aspen leaves when they change colors in the fall, and green is the color of the environment. Now, it used to be that when I taught environmental ethics my classes would fill up and be overflowing with students—I would turn away two or three times as many students as I could admit to the class. That's not true anymore. Why? Because everybody else on campus stole my thunder. They're all teaching sections on the environment in their classes. Now, should I be proud of that, or sorry for that? I think I'm proud of that. If it turns out that I started environmental ethics, and now there are hundreds of classes at my school—Colorado State University—with an environmental section, I consider that a great success.

Another change is the role of women. I'm very glad that women have come prominently into the field. But what have they done? One of the things they've said is that environmental ethics needs to be more feminine than it used to be—it was too masculine in the way it thought. What does that mean? They say, well, environmental ethics needs to have more caring in it, and women know more about appropriate caring than men do. But wait a minute. I may be White, I may be male, but I know a lot about appropriate caring, don't I? Just ask my wife, ask my daughter or grandchildren. Yes, we welcome any insights women may have into what is a more appropriate form of caring. But I don't think that's the whole truth about the matter. Well, those are two changes that have come in.

I'm glad to be able to say that one of my publishers contacted me and asked me to put out a new edition of my book because it is one of two books that's been selling the most

in the field. Though I have a little humility left, I can be proud of the fact that my book is one of two of the best selling books in the field, even though I'm now 90 years old, and can hardly remember where I left my hat.

HRP: You mentioned feminism and talked about how environmental ethics may or may not be more feminist in some ways. How do you see environmental ethics interacting with other fields, such as with other areas of ethics and with political philosophy?

HR: Environmental ethics intersects with politics and economics. In fact, it intersects enormously with politics because when you start talking about saving the Earth, you're intersecting with politics. E. O. Wilson, a famous environmentalist who taught at Harvard and was an expert on ants, has a book called *Half-Earth*. What could he mean by that? Well, Wilson says, if we do it right, we'll conserve half of the Earth for the other creatures on Earth. You may say, that's crazy. But Wilson says no, it's not crazy. He says that what he means by half-Earth, for the other creatures, is that there are enormous parts of the Earth where creatures are doing their thing naturally, and where life is still going on pretty much like it once did.

For example, there are ice fish, which live in icy water at the bottom of very cold oceans. And we have recently discovered that there are enormous numbers of them, even though we can't go down that far. But we've got instruments that can drag down that far. If you think about the enormous numbers of ice fish at the bottom of these shelves, half-Earth counts those. There's another Antarctic critter called a krill. A krill is a little thing, kind of like a shrimp, that's the basis of the main food chains in the Antarctic Ocean. Well, once again, there are enormous numbers of krill. And Wilson says they're still there, doing their thing, and counts them as part of half-Earth. Wilson says we can save half-Earth. And after a while, I say, well, maybe Wilson's right. You've got to think big. You've to think curiously, in hybrid ways, about this wonderland Earth.

HRP: On the topic of the intersection of environmental philosophy and other fields, we wanted to ask about the intersection between language and environmental philosophy, which we know you've written about. What's at stake with the words that we use and how we define them when we talk about environmental philosophy? How important is linguistic precision when we talk about environmental philosophy?

HR: I just used language with some precision in this discussion with you, when I talked about wonder. I wouldn't want to say, "Do you think life is a *miracle*?" because you don't have anything to do, perhaps, in your thinking, with miracles. But I snuck up on you with the word "wonder." When I asked, "Well, what about wonder?" that got you thinking a bit, right? So, when I choose my words, I'm likely to choose a word that you're going to have to puzzle over a little bit to get you thinking. If I use the word "dead," you might think you know what dead means. But if we began talking about some human being who has gone into a coma, maybe you're not so sure when he's dead. That's to say, because the impulse that beats the heart of this dead person may still be beating a bit. We don't know when to really say he's dead. Why would you want to know when he's really dead? Because you want to grab his heart and transplant it to somebody else. And you can't if he isn't dead yet, right? So we have got to use language with a lot of precision sometimes, if we're going to do our business right.

Environmental ethics interacts with economics, of course. Because economics is about keeping business going and we need good economics to stay alive, don't we? So it's going to interact. And what does good economics need to know? Good economics may need to know how economics helps people to get right about the meaning of life. I may say, the good economist isn't doing his or her work right until that economist can help people think better about the meaning of life—the deeper meaning of life.

HRP: We talked earlier about science. Often when we talk about science, we also tend to think also about technology. And technology and the environment interact in a lot of different ways. What do you think human technology has brought that can affect life and the environment and that's not necessarily a bad feature of technology? Can technology help us understand the environment in the same way that science does?

HR: Technology is a two-headed beast, in the sense that you can use technology for the better and you can use technology for the worse. Let's think for a bit about artificial intelligence. What kind of decisions do you want to turn over to artificial intelligence? Well, when I get in my car and start driving I may set the guidance system so I don't have to think about where I'm going very much, because the car is following the automated guidance system and it will get me to work. But do I want to turn my decisions after I get to work over to an automated intelligence system?

Here's an example. Let's think Star Wars: way up in the stratosphere, our defense systems guarding our country. Out here in the West, where I live, we had a lot of hidden, guided missiles in underground silos. And most of us who hiked around over the landscape kind of gradually figured out where a lot of those things were because you couldn't get there—alarms of various kinds would go off. There were these hidden missiles in silos, very deep underground. And the Russians had the same kind of thing. Once, the Russians got a signal that the Americans had sent a guided missile and concluded: We've got to retaliate in about twenty minutes. And there was a guy who was in charge of that and he wasn't so sure. This was just a couple of weeks after the Russians had shot down a jet that flew over its territory by mistake. But this guy thought about it. And he said, "I'm not sure. No, stop it. Don't send it." And he stopped that missile from flying. He saved the world, you might say, because he was unwilling to follow what artificial intelligence told him he ought to do. Now, he had a kind of unfortunate career. The Russians didn't know that they had this weakness in their system. He exposed it, and they didn't like that. That didn't come out for a long time, until it leaked out to the British, many years later. Well, that's an example where you don't want to entrust certain decisions to automated or artificial intelligence. "Do I want to marry this girl or not?" Maybe I don't want to consult automated intelligence for this decision.

HRP: One last question about technology: what is its role in the trajectory of the planet, specifically in terms of evolution? There's been a lot of writing about how the evolution of the human species—and possibly the evolution of other species—has been hampered or at least significantly altered by the onset of technology. So especially given what you've said previously about finding God or divinity in serendipitous moments of evolution, do you feel that evolution as a phenomenon itself has fundamentally changed,

given technology's role in human culture? Does that say anything about the divine's presence in evolution?

HR: Well, we live in a new century and a new millennium. A lot of scientists will say that we can tell you what's happened in the past, we know how it used to work, but now in the new millennium, we are unable to predict what's going to happen. Why? Because of technology. The next one hundred years will not be like the last one hundred years. We don't know what decisions we will make. We'd be crazy to say that we know what the next millennium will be like. You know, scientists can predict eclipses for thousands of years. So you might say, "Okay, then predict the Dow Jones for me two days ahead, and I can make a lot of money from that." This is an unknown, partly because there are elements of chaos in there that will affect things, partly because we don't know how humans will react to these elements of chaos that are in there. It seems to be the case that it's impossible to predict the weather more than about ten days ahead. There's a famous story about how butterfly wings in Beijing can affect the weather in California a week later—perhaps you've heard about that. The deal is, these are in part chaotic systems. And humans dealing with chaotic systems can't predict what the next few days are gonna be like, much less what is going to be going on a century or more from now.

When will the world end? No computer can predict that. I mean, we have certain predictions about what will happen to Earth. But we don't know whether, when that happens to Earth, we will have learned how to manage the planet or not. These long-term, world-changing decisions, we think, are not there to be predicted because they haven't yet been made. I mean, there are certain things you can't predict if they aren't there to be predicted. And we think that the next millennium is going to be of that character. The new millennium will not be like any previous millennium.