

Speaking of Faith[®] with Krista Tippett

Evolution and Wonder: Understanding Charles Darwin

Discussion Questions:

- 1. In our time, the publication of Darwin's theory of natural selection is imagined as an instantaneous parting of the ways between science and religion. But in reality, the great scientists who inspired Darwin—Copernicus, Galileo, and Newton—saw the pursuit of science as a divinely ordained gift and responsibility. James Moore has written that On the Origin of Species was not the first work to break with religion, but the last great work in the history of science in which theology was an active ingredient. Darwin referred to the "creation" over 100 times in the Origin of Species. He said that when he wrote it his faith was as strong as that of a bishop.
 - Does this understanding of Darwin affect your perception of him and of his theory of evolution?
 - In your own life, how has your experience of the natural world affected your understanding of a divine creator?
 - How has your spirituality or your understanding of God shaped your experience of nature?
 - In what ways might this understanding of Darwin create opportunities for your own sense of the relationship between science and religion?

2. As James Moore and Krista Tippett discuss, Darwin saw creation as an unfolding reality. Once set in motion, as he saw it, the laws of nature sustained a self-organizing progression driven by the needs and struggles of every aspect of creation itself. The word "reverence" would not be too strong for the attitude with which Darwin approached all he saw in the natural world. There is a great intellectual and spiritual passion and a touching sense of wonder evident in his writings.

- How does this help you think differently about the supposed dash between Darwin's ideas and Christian theology?
- What questions does it raise for you—about God, and about our cultural debates?

3. In his writings, Darwin addresses the limitations of human understanding when it comes to the natural world—that the combination of minute changes over an almost infinite period of time is nearly beyond comprehension. "The mind cannot possibly grasp the full meaning of the term of 100 million years," he wrote. "It cannot add up and perceive the full effects of many slight variations accumulated during an almost infinite number of generations."

- In what way does the scale of evolution—the fact that it stretches over hundreds of millions of years—make it difficult (or easy) to accept?
- How does the idea that the world was created over hundreds of millions of years affect your understanding of a divine creator?

4. James Moore says that Darwin did not argue against God, but against a simple understanding of the world—it's beauty, its brutality, and its unfolding creation. His own sense of the limitations of the religion of his time had to do with social inequities as well as his observations of the natural world. As Moore puts it, before Darwin left on his voyage of discovery on December 27, 1831, "God was in his heaven, all was right with the world and, at least in England, people knew their places." Darwin returned home to a nation in social upheaval: plagued by crop failures, overcrowded cities, and government sponsored workhouses. That change in the culture had a powerful impact on Darwin's scientific thinking.

• Are you surprised by the way Darwin's scientific theories were affected by the social realities of his time? Why or why not?



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- When you consider Darwin's theory of evolution, especially about the life-and-death struggles of species over millions of years, what theological questions does it raise for you?
- Do you feel a sense of liberation or a sense of abandonment in the idea that God is not minutely responsible for the injustices in life?
- How do you reconcile the idea of a loving creator with the kind of cruelty evident in the natural world?

5. Throughout history, Christians have held a variety of viewpoints on how the Old Testament stories of creation are to be read. When the Bible was translated into the vernacular and made accessible to ordinary people, this had some unintended consequences, argues James Moore. Moore says that allowing ordinary people to read and interpret the Bible opened up "a Pandora's box" when it came to understanding the natural world and creation.

- Are there ways in which allowing each person to interpret the Bible on their own can have negative consequences?
- Does having an understanding of the variety of Christian viewpoints on creation affect the way the evolution debate is framed?

James Moore points out that Darwin had a wonderful imagination, with "the capacity to sit still or stand still in a field or in a wood, for an hour at a time, and just watch and listen... There are few of us who have that today, and we're the worse for it."

- Do you agree with Moore's statement? Why or why not?
- Have you ever had the experience of sitting still in nature for an hour? What was it like? What feelings or impressions came over you during that time?

One of the most controversial notions in Darwin's theory is the idea that human beings evolved from lower animals. At one point, he uses the notion of a "tree of life" (a biblical image from the Garden of Eden), to describe the interconnectedness of all life. He believed that rather than demeaning human beings, his theories instead lifted up the worth of all created things.

- What's your reaction to the theory that human beings evolved from lower animals? Can you accept it or is it unsettling?
- Does the idea of human evolution frighten you? Fill you with awe? Or is it something you don't think too much about?

8. At the end of his life, Darwin wrote to his friend, Harvard botanist Asa Gray, of his struggles to understand both the cruel nature of life and the feeling that the universe has meaning. He used the example of a man standing under a tree being struck by lightning. Did God intend for that to happen? Darwin told Gray he could not accept that belief. Yet, he told Gray, "I cannot persuade myself that electricity acts, that the tree grows, that the man aspires to the loftiest conceptions, all from blind, brute force." These seemingly opposite ideas—that the universe is a place of random cruelty and conflict, and that the universe somehow has meaning—lie at the heart of contemporary debates over evolution.

- How do you make sense of the tension of these two ideas?
- What do you see as the merits and the limitations of each idea?
- Can you see a way to bring these two points of view into harmony?



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