Can Science and Religion Coexist Peacefully?

Texts: Isaiah 40:12; Job 38: 4-30; A Christian Scientist on Science and Religion, by Francis Collins

It would certainly seem at first glance that science and religion can't coexist peacefully. It's a meme in our society that science and religion are at war. A trip to the bookstore or to Amazon will show a ton of books making that point, from Daniel Dennett's **Darwin's Dangerous Idea** to Richard Dawkins' **The Blind Watchmaker**, to many more.

On the other side we have Christians setting up their own homeschooling system, so that their children won't be exposed to modern biology and evolution. We have a scale reconstruction of Noah's Ark in Kentucky to prove that the flood really happened just the way the Bible said it did. But there are problems with this view of science and religion being implacable foes.

Research done by the American Association for the Advancement of Science found that 51% of scientists believe in God, 41% do not, and others are undecided. Meanwhile, Christians like Francis Collins, the former Director of the Human Genome Project, who wrote our Contemporary Reading today, and Brown biologist Kenneth Miller, who wrote *Finding Darwin's God*, are working scientists as well as believers.

Like so much warfare, much of it is done for profit and not for truth. Dawkins, for example, insists that Christians must read the Bible literally so that he can make his points that a literal reading contradicts science. But as we saw last week, a literal reading is far from the only way of reading the Bible, and Christians have been reading the Bible non-literally since the time of Jesus and Paul. But Dawkins can sell more books if he doesn't acknowledge that.

On the other side, I always think of the Noah's Ark recreation in Kentucky as somewhat self-refuting. It took four years and cost \$150 million dollars to build, using 1,000 Amish craftsmen along with other workers. The planned wooden pegs could not be used, so the more convenient and up-to-code metal nails and steel fasteners were employed. These weighed a total of 95 tons. So it took 1,000 craftsmen working four years and spending \$150 million dollars, with the help of modern equipment, to build the ark Noah and his three sons were supposed to have built all by themselves? I think the project shows that they *couldn't have done it*, not that they could! Their literalism has led them to an absurdity!

It was St. Augustine who once wrote, "It is a disgraceful and dangerous thing for an unbeliever to hear a Christian, presuming to give the meaning of Scripture and talking nonsense on these topics." Augustine noted that many nonbelievers were well-versed in the scientific knowledge of the day and would detect the Christian's 'vast ignorance' and laugh it to scorn. This is a piece of advice many Christians would do well to heed even today. In fact, for much of history, as today, many scientists have been Christians, and many Christians have been scientists. The great physicist Sir Isaac Newton was a devout, though somewhat unorthodox, Christian. Gregor Mendel was a monk whose research in peas set the foundations of modern genetics. And there are many more.

Historian of Science at Johns Hopkins university, Laurence Principe, says that no professional historians of science see the warfare model as an adequate representation of the history of science and religion. In fact, Principe points out that the warfare model comes from two 19th century books that were very popular, but filled with historical errors, misstatements, and out of context quotes.

It's from here that came such absurdities as religious opponents of Columbus thought he would sail off the edge of the world, but he bravely made his trip anyway. There was a debate at Salamanca about the feasibility of Columbus' trip, where Columbus was opposed by Christian scholars. But the scholars used an estimate for the circumference of the world that the ancient Greeks had worked out, and were arguing that Columbus wasn't going to be able to take enough supplies with him. And they were right! Columbus was very lucky to have run into North America, or he would have perished at sea from lack of supplies long before he reached the east.

Sometimes Christians are accused of having had no interest in the natural world because they could answer all questions with "God did it." But that is historically not the case at all. Christians have long been interested in what we would call scientific questions, because the Bible is interested in them. Our two Scriptures from today point out that God challenges humans to answer questions that we would consider scientific. In the Isaiah passage, we have a question about how to measure an amount of water, which is conceivably a chemistry question; a question about how to mark off the sky, which is about astronomy; a question about figuring out the weight of mountains, which would be a physics or geology question. And then in Job, we have questions about investigating facts of geography, when God asks Job about the extent of the sea; and meteorology, when God asks Job about how weather works in clouds, gales, sunrise, lightning, snow; and then chemistry and physics again with the question about changes of the state of matter, as when God asks Joab about how water becomes hard like stone.

There's an interesting dialogue that the Medieval philosopher Adelard of Bath has with his nephew. He asks the nephew, "Why is there a rainbow in the heavens?" His nephew replies that it is a sign of God's promise not to flood the entire earth again." "Yes, yes," Adelard replies, "Of course that's what God said and of course God put the rainbow there, but that doesn't explain the rainbow. That is an example of a refuge from a real philosophic explanation. I know God did it, but that's not natural philosophy [his name for science], that's theology."

Okay, so that was in the 12th century. It's just not true that they had no interest in what we think of as scientific questions, or that they just said, "God did it!" They explicitly denied that "God did it" was a sufficient explanation. In fact, they even looked for natural explanations for miracles throughout the early church and Middle Ages. The classic example is the parting of the Red Sea, to allow the Israelites to pass through as they were being chased by the Egyptians, as told in Exodus. The text says that God sent a wind to cause the waters to separate. In other words, the Medievals pointed out, the cause of the separation of the waters was a natural cause, the wind. God didn't use God's hand to hold back the waters as a direct cause. No, God used a secondary cause, part of the created order, the wind, to do the work. Now, the fact that that wind came up just as the panicked Israelites were standing on the seashore, looking back at the approaching Egyptian army, well, that was a miracle - a miracle of timing, but in principle, they could explain the story using only natural causes.

Sometimes it's claimed that Christians prevented the development of science because of a deference for authority, but, again, that's not the case at all. There was no greater authority in the Middle Ages than Aristotle, and people like Thomas Aquinas and Albert the Great wrote huge commentaries on him. But they were quick to point out where this great authority figure had got it wrong, and their commentaries were quick to point out that human reason could make mistakes and had to be tested in debate. It's likely that this spirit of debate that was so characteristic of theology in the Middle Ages led the way to the development of the scientific method.

I wish I had more time, because the relation between science and religion, or Christianity in particular, is complex, complicated, and utterly fascinating. Long ago, St. Augustine first made the point that Francis Collins reiterated in our Contemporary reading today: that all truth is God's truth. What that means is that there are not two truths, one truth for religion and one for science. There is only one truth, and both science and religion are searching or it, though by different means. But it also means that anything that is true is from God. What is true about nature cannot ever refute God, because God is the creator of both nature and truth.

The ancients saw God's revelation in two books: in the Bible, and in the book of nature. And they sought to use both books to enlighten one another. But when it came down to it, they firmly sided with those who said that the Bible should be interpreted by the book of nature, and not the other way around.

When the Scriptures are well interpreted, and when science sticks to science and not metaphysics, then both sides can find a way to get along. History shows that there is no necessary war between science and religion, and many Christian scientists and scientific Christians are showing the way for the rest of us. Amen