## Co-author of the new book, "Quantum Leap," Dean Nelson, speaks about his new work analyzing the discourse between religion and science as understood by Anglican theologian and renowned physicist, John Polkinghorne

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CAVANAUGH: This is KPBS Midday Edition. I'm Maureen Cavanaugh. The war against science wage bide some conservative politicians has in certain intellectual circles resulted in a war against religion. Both sides have squared off, and even among the rest of us looking on, there's pressure to make a choice. Are you religious, I believer in supernatural messages and miracles, or do you stand with the rationality and cheer thinking of science? Lately, we haven't heard much about people whose concept of the world spans both religion and science, but such a man is the subject of a new book coauthored pie a frequent guest on this program, doctor dean Nelson, founder and attractor of the journalism program at Point Loma Nazarene university. His new book is called quantum leap, how John poking home found God in science and religion. Welcome to the show.

NELSON: Thank you for having me on

CAVANAUGH: Your book is about the scientific and spiritual quests of John Polkinghorne. The reverend John Polkinghorne was a guest on KPBS, These Days, just about a year ago. But remind us who he is.

NELSON: John Polkinghorne is one of the most astonishing people I've ever met, actually. He's 82 years old, as of this month, and was the person who was able to explain mathematically the existence of quarks and gluons. He doesn't discover quarks and gluons, but he was able to explain their existence

CAVANAUGH: Which are subatomic particles, yes.

NELSON: Yes, the smallest known particles. So he did this, and he's at the top of his game as a physicist at Cambridge in England, and in his mid-'40s decided it was time to do something different. And what he ended up doing was he wanted to become a pastor. And so he became a priest in the Church of England and went to seminary and was given a small parish in central England, and so he went from being this uber physics guy to this priest in a little community no one had heard of. What that meant was it gave him a chance to think about both, faith and science, and he started writing about those two things. And he's since written probably 30 or 32 books on the relationship, what he hopes to be a relationship between faith and science

CAVANAUGH: Now, it's fair to say, I think that reverend Polkinghorne's decision to enter the priesthood shocked many of his colleagues. How does she explain this decision?

NELSON: He says that for one thing, it wasn't some kind of Damascus road event where he got knocked off a horse and felt like God was saying go be a priest. As he explained it to me, physics is the kind of thing that you don't get better the older you get at it. And he felt like he had done his "bit for science". And there was always this gnawing kind of within him that said there's more to his life to explore than just his scientific life. And that was the spiritual side of things. So he gathered his colleagues together, and told them he was going to be leaving. The I think the most interesting response was from Steven wine berg, the Nobel prize winning physicist at the university of Texas now, he and Polkinghorne are very good friends, and wine berg is an atheist. And when Polkinghorne told him what he was doing, wine berg wrote in one of his books that he nearly fell off his chair

CAVANAUGH: Now, the larger context of your book, quantum leap, is about this battle, if you will, between science and religion. It actually has been going on for centuries. But it's heated up in the west.

NELSON: It certainly has

CAVANAUGH: What do you think is at the heart of this conflict?

NELSON: That's a great question. Usually when you see polar positions kind of sniping at each other and not engaging in any kind of potential harmony, I suspect there's fear involved. That could be applied to any kind of an argument, I suppose. In the faith and science thing, I think the science community, and I know a number of people who feel like there is no room whatsoever for any kind of faith dialogue or faith component or transcendent kind of thing because they're all about verification verification. And I get that. But there are times when you can't verify everything, and you proceed anyway. And of all topic, physics, quantum physics is delving into mystery.

CAVANAUGH: Right.

NELSON: So I don't know why everybody has to dig in quite that much, but I think they fear that -- well, on the faith side of things, somebody's just convinced that if we follow the scientific discoveries, then that's going to disprove the Bible or disprove historical Adam and even and things like that. And as Polkinghorne would say, there's more to the story than that. It doesn't have to be a fear-based relationship.

CAVANAUGH: Now, there are some religious people who have tried to prove the existence of God in sort of a scientific way. Is John Polkinghorne in that school?

NELSON: NO, not at all. Forgive me for interrupting, but any more than no one's trying to prove the convince of a quark. No one's actually seen a quark, you know? They're too small, and they move too fast, you know? And so this is again why Polkinghorne says there should be more middle ground or harmony because scientists deal with unseen realities all the time.

CAVANAUGH: But there are mathematical equations that can get you to a quark.

NELSON: Good point. I haven't seen the mathematical equation that says God exists. You're right.

CAVANAUGH: What is Polkinghorne's argument against atheism?

NELSON: I don't know that he has an argument against it. I think he would -- in fact, what he says to me, and in the book, quantum leap, I quote him, he said they just explain less. He doesn't have a problem with atheism. Wine berg is one of his good friends. And wine berg's an atheist. He just says atheists just explain less. And that's an interesting position. He's not an anti-atheist by any means. He totally understands why people would be atheists, he just says but I'm not

CAVANAUGH: Now, I think that there are actually two levels in the discussion in your book, quantum leap. First is the idea that scientists can have a spiritual life.

NELSON: Oh, sure.

CAVANAUGH: That they can have the humility to believe that science doesn't have all the answers. Do you thinks are because I do, are that many scientists fall into that category?

NELSON: I don't know if many. I know there are some scientists who are afraid to speak openly about the fact that they have a faith because they're afraid that they're going to be thrown out of the academy or something for believing in voodoo or magic or something. But I think there are a number of very, very good scientists who have a viable faith of some kind. Look at Francis Colibs, the guy who was the head of the human genome project. He's now the head in the Obama administration in the national institute of health. Here's a guy who's shameless about his Christian faith, but he's also a very, very significant scientist in this country.

CAVANAUGH: Well, that's the distinction I want to make. Because I think that there are a lot of people who perhaps, nonbelievers and people who don't think much about religion, can understand that a scientist might have a spiritual life. But to have a dogmatic, theological belief in a certain religion like Christianity, the virgin birth, the resurrection of Jesus Christ, that seems to go beyond the pale in a sense, because it doesn't seem reconcilable with science

NELSON: Yeah, and it's hard to verify, and replicate and things like that like you would want to in a laboratory. On things hike a resurrection or miracle, where Polkinghorne comes down is are these some things that reveal the nature of God? And if so -- and maybe we can't be too dismiss missive of these thing, but keep exploring, and keep trying. As he says, this isn't a knockdown argument. Christianity is not a knockdown argument. But he's motivated to believe that it's true. And this is the parallel he draws to science. Scientists go into experiments, motivated to believe that what they're working on is going to have some sort of fruitful exchange or discovery or whatever, and even when it doesn't, they're still motivated to continue. When things that seem so counter intuitive, even some would say just nutty, is that worth throwing the whole thing out or are you motivated then to just kind of keep continuing and know that there's always going to be more to the story?

CAVANAUGH: Is it important, do you think, to reconcile science and religion?

NELSON: What I think is important is that the two acknowledge that there might be more to each other's place than some of the polar opposites are acknowledging. I don't know that harmony is always the point. At least acknowledging that somebody else might be onto something.

CAVANAUGH: I'm interested to hear what kind of response you've gotten from quantum leap from perhaps people who are in religion, people who are scientists.

NELSON: Yeah, I did an essay in USA today a couple weeks ago on John Polkinghorne and why the certainty of God is over rated. And the response within 24 hours, there were seven hundred comments on that piece. And it goes all over the place from Polkinghorne's nuts, if you're a scientist, you don't believe in manualic. And any kind of faith is some kind of magic. And other people are saying oh, you scientists, you just -- you're just so arrogant. I'm really intrigued by what most people have been saying, to get to your question, and that is most people are saying this seems reasonable. To think the way Polkinghorne is proposing is actually reasonable. And that's what I think Polkinghorne brings to the party. He's just such a reasonable voice, not shrill, he's lived in both of those worlds, and he's saying maybe there's a deeper way to think about this.

CAVANAUGH: How has John Polkinghorne inspired you?

NELSON: Oh, my gosh. We don't have time. I've just never been around a smarter person. But sometimes smart people can boil really complicated things down to the most clear explanations. And that's what I tried to capture in this book is that there's -- it doesn't have to be as complicated and muddy and incomprehensible, whether it's science or faith. There can be a clarity to it. And I found myself just really rewarded by hearing his clarity.

CAVANAUGH: Dean Nelson's new book is quantum leap, how John Polkinghorne found God in science and religion. And I've been speaking with doctor dean Nelson thank you so much for talking with us

NELSON: My measure. Thanks for having me on.