



St. Paul's Episcopal Church, Delray Beach, Florida  
Trinity Sunday - Year C - May 29/30, 2010  
Romans 5: 1-5, Ps. 8; John 16:12 - 15  
Preacher: The Reverend Canon William H. Stokes, *Rector*

### **Faith, Quarks and The Trinity**

*Jesus said, "I still have many things to say to you, but you cannot bear them now. When the Spirit of truth comes, he will guide you into all the truth...."*  
(John 16:12 – 13)

How many of you listen to Krista Tippet's *Speaking of Faith* on Public Radio? It's terrific. It began as an occasional series in 1999; became a monthly program in 2001 and in 2003 was launched as a weekly offering. It airs live on Sunday mornings in our local market, at 7:00 AM on WLRN, the Public Radio station out of Miami. You can also listen to it whenever you want to on-line. Just "Google" *Speaking of Faith*. It is a wonderful, fascinating and provocative show that takes a deep, serious and informed approach to the larger questions of religion, meaning, ethics and life.

This past February, Tippet published her second book, *Einstein's God: Conversations about Science and the Human Spirit*.<sup>1</sup> It's a collection of transcripts from interviews she has conducted over the years that address what the back of the book describes as the "nexus of science and spirituality." Too often, this nexus of spirituality and science is seen as an opposition. Tippet's interviews challenge this view in rich, wonderful and varied ways. The book will be one we explore this summer in our book discussion series.

Included in *Einstein's God* is an interview Tippet had with Sir John Polkinghorne in 2008. Polkinghorne, now 79 years old, was Professor of Mathematical Physics at the University of Cambridge from 1968 to 1979. He played a role in the discovery of Quarks, a basic unit in particle physics (any particle physicists out there?). In 1979, Polkinghorne resigned his chair in mathematical physics to study for the priesthood, becoming an ordained Anglican priest in 1982. He served as the president of Queen's College, Cambridge from 1988 until 1996. Polkinghorne is the author of five books on physics, and 26 on the relationship between science and religion.<sup>2</sup> I had the privilege of hearing him lecture in 1991 at the Trinity Institute, an annual conference sponsored by Trinity Church, Wall Street. Polkinghorne provides us with proof positive that one can be intelligent both about science and religion; that people of faith don't need to check their brains at the door nor reject the vast amount of knowledge that has come to us through science.

Polkinghorne also represents an important challenge to popular atheists like Richard Dawkins, Christopher Hitchens<sup>3</sup> and others who oversimplify religion and then use reductionist arguments to make caricatures of those who are religious in order to trivialize and dismiss religion and its adherents. Neither science nor religion are going away and acceptance of the truths of one does not preclude acceptance of the truths of the other.

As Tippet notes in the Introduction to *Einstein's God*, "The science-religion 'debate' is unwinnable, and it has led us astray. To insist that science and religion speak the same language, or draw the same conclusions, is to miss the point of both of these pursuits of cohesive knowledge and underlying truth. To create a competition between them, in terms of relevance or rightness is self-defeating. Both science and religion are set to animate the twenty-first century with new vigor. This will happen whether their practitioners are in dialogue or not..."<sup>4</sup> Tippet adds, "But the dialogue that is possible – and that has developed organically, below the journalistic and political radar – is mutually illuminating and lush with promise."<sup>5</sup>

Needless to say, Sir John Polkinghorne is one person who has been a harbinger of this dialogue, "lush with promise." He has, in fact, been engaged in it throughout most of his life and ministry as scientist and theologian.

An exchange between Polkinghorne and Tippet in the 2008 interview, which is included in *Einstein's God* offers insight into the important role Polkinghorne has in fostering this dialogue and in bridging the science-religion conversation.<sup>6</sup> Tippet says the following to Polkinghorne: "...You've talked about how wave and particle theories can both be true – and about how Paul Dirac in 1920 at Cambridge suddenly made it clear how light could give a wavelike answer if you asked a wavelike question or a particle-like answer if you asked a particle-like question. Can you explain what he's describing and what that means to you?"<sup>7</sup>

In his response to her, Polkinghorne indicated that "People had been arguing about what light was like for a long time." "Newton had some ideas about it, he said" But it was "In the nineteenth century, people made some discoveries, both experimental and theoretical, that clearly showed that light behaves like waves..."<sup>8</sup>

"At the beginning of the twentieth century," Polkinghorne continued, "through the ideas of Max Planck and also a young chap who worked in the patent office in Bern named Albert Einstein, people saw that light also has particle-like properties. This was a real crisis....because a wave is a spread-out, flappy thing. A particle is a little bullet. So how could something be sometimes spread out and sometimes bullet like."<sup>9</sup>

"For about twenty-five years, nobody knew," Polkinghorne said, "But the scientists just had to hold on to experience by the skin of their teeth even if they didn't know how to reconcile it. And then the thing has a happy ending. In my old University of Cambridge, where Paul Dirac discovered something called quantum field theory."<sup>10</sup>

Polkinghorne explained, "Now a field is something that is spread out and can be flappy. It certainly has wavelike properties. But when you bring in quantum theory; it chops things up into little packets. Little packets look like little particles, so a quantum field has both of these sorts of properties. And if you ask it a wavelike question, it gives you a wave-like answer. You ask it a particle-like question, it gives you a particle-like answer..."<sup>11</sup>

Polkinghorne concludes, “You take both answers into account and the important thing I want to emphasize is that people had to cling to taking both insights into account before they understood how they fitted together. We don’t make progress by chopping experience down to a size that fits into our current theories. We have to allow the way the world is to modify our understanding of the world. And if you’re a Christian theologian, and you’re telling that sort of story that I’ve just told about light being both particle-like and wave-like, we know that the Christian story about Jesus Christ is that he is both a human being but also, in some real sense, needs to be described in terms of divine language. It’s the same sort of dilemma. And we’re not so clever theologically at finding the precise answer to that. But again, we don’t make progress by denying our experience.”<sup>12</sup>

That’s pretty deep stuff and maybe you’re wondering why I’m talking about it today. Well this weekend is our observance of the feast of the Holy Trinity....It’s the only observance on the church calendar that concerns a teaching, or doctrine of the church, rather than an event in the life of Our Lord or an observance of one of the saints.

This observance places before us a fundamental fact: For more than 2000 years Christians have experienced God as Trinity - Three in One and One in Three – God: Father, Son and Holy Spirit. It is both a paradox and a mystery, but it is a paradox and mystery which we genuinely have experienced in the past and which we continue to experience today.

And because we have experienced it in the past, and because we continue to experience it today, our human nature, our God-given inquisitiveness and curiosity, call upon us to probe and explore this mystery and paradox with the same rigor and intelligence with which we probe and explore the mysteries of space, or the brain, or quantum physics; and not to deny our experience and thereby block progress in our understanding of God.

This kind of denial of our experience happens all the time when well-meaning people try to resolve the religious differences of the world by declaring, “Well it’s all the same God.” There is, indeed, some truth to this, in the same way that Quantum Theory holds together both wave-like views and particle-like views of light. But we cannot just leave it at that. The nature of our relationship with God and God’s creation calls upon us to explore this more deeply; calls us to the constant pursuit of truth as it relates to God.

For us as Christians, this truth is about the nature of God as Trinity; a truth we believe God has revealed to us. Other world religions have experienced different revelations concerning God and God’s nature and they cannot and should not abandon or deny their experiences. So we need to learn to hold these seeming theological paradoxes and differences together, in the same way physicists hold together wave-like and particle-like views of light.

Too often, contemporary culture, built as it is on sound-bytes and video-clips, seduces us into lazy thinking and reckless, often-thoughtless, conversation wherein people throw around a lot of verbal hand grenades, ala Glenn Beck, but frequently have little or no accountability for their speech. This is as true of our conversations about God and religion as it is of conversations about politics and sex.

Instead of discourse that stimulates our minds, promotes our intellectual growth and builds community, it too often tears apart; polarizes people. For some reason, too

many people today have been conditioned to believe that differences are intolerable...As a result, many have become slaves of their own ideologies.

As people of faith, as Christians, we place great value in freedom and reject anything which imprisons or enslaves us. “*For freedom Christ has set us free*” (Galatians 5:1). Freedom is not only a core value of this great nation of ours; freedom is at the heart of Trinitarian understanding.

German theologian Jurgen Moltmann captures this when he writes in his book, *The Trinity and The Kingdom*, “The experience of freedom always has a religious dimension. Consequently, the concept of freedom has a theological dimension as well...The triune God, who realizes the kingdom of his glory in a history of creation, liberation and glorification, wants human freedom, justifies human freedom, and unceasingly makes men and women free for freedom. ...God unceasingly desires the freedom of his creation. God is the inexhaustible freedom of those he has created...”<sup>13</sup>

At the heart of our experience of this God given freedom is the freedom to love the God who is Love in the divine essence and substance of the Trinity and through love of God - Father, Son and Holy Spirit - to love all the creation this God has created; most especially to love one another created in God’s image and never to deny this experience. It seems to me this is an appropriate reflection for our celebration of Trinity Sunday, and also for this Memorial Day weekend, both of which are so essentially tied to the gift of human freedom.

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<sup>1</sup> Tippet, Krista *Einstein’s God:: Conversations about Science and the Human Spirit* (New York: Penguin Books, 2010)

<sup>2</sup> Biographical information is taken from the entry for John Polkinghorne found on the on-line encyclopedia, Wikipedia. See [http://en.wikipedia.org/wiki/John\\_Polkinghorne](http://en.wikipedia.org/wiki/John_Polkinghorne)

<sup>3</sup> A summary of Dawkin’s thought can be found in his book *The God Delusion* (Boston and New York: A Mariner Book – Houghton Mifflin Company, 2006). A summary of Hitchen’s thought can be found in his book *god is not Great: How Religion Poisons Everything* (Boston and New York: 12 Hatchett Book Group, 2007).

<sup>4</sup> Einstein’s God, p. 1

<sup>5</sup> Einstein’s God, p. 1

<sup>6</sup> “On the Complementary Nature of Science and Religion – Quarks and Creation” – Chapter 10 of Einstein’s God, pp. 251 – 279.

<sup>7</sup> Einstein’s God – p. 260

<sup>8</sup> Einstein’s God – p. 261

<sup>9</sup> Einstein’s God, - p. 261

<sup>10</sup> Einstein’s God – p. 261 -262

<sup>11</sup> Einstein’s God – p. 262

<sup>12</sup> Einstein’s God – p. 262

<sup>13</sup> Moltmann, Jurgen *The Trinity and The Kingdom* (Minneapolis: Fortress Press, 1993), 218