

In Honor of Stanley L. Jaki (1924-2009)

By James D. Nickel

In Madrid, Spain, on 7 April 2009, Stanley L. Jaki, Benedictine priest and historian of science, died of a heart attack. He was in Spain to visit friends on his way back to the United States, after delivering some lectures in Rome, for the Master in Faith and Science of the *Pontificio Ateneo Regina Apostolorum*. He was buried in Hungary, his country of birth, at the Archabbey of Pannonhalma (established in the 10th century), on 29 April 2009.

Winner of the Templeton Prize for 1987,¹ his erudite writings, covering a span of nearly a half century, unveil a deep understanding of the relationship between the Christian faith in God the Creator and the viable birth of modern science.²

Holding double doctorates, one in nuclear physics and the other in theology, he was the Distinguished Professor in the history and philosophy of science at Seton Hall University.

In addition to Jaki's training, his discipline of comprehensive research,³ clarity of style, sparkling wit, and invigorating passion, uniquely qualified him as an authority in his field.

The aim of his life work was the framing and explicating of a critical question, "How is it that science became a self-sustaining enterprise only in the Christian West?" Jaki believed the answer lay in the Christian faith, especially in the reality and cultural impact of the Incarnation.⁴

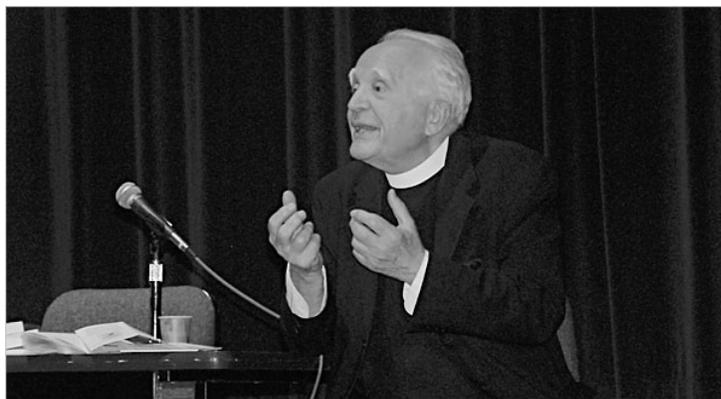
The American writer Walker Percy (1916-1990), summarized Jaki's analysis as follows:

"... as Whitehead pointed out, it is no coincidence that science sprang, not from Ionian metaphysics, not from the Brahmin-Buddhist-Taoist East, not from the Egyptian-Mayan astrological South, but from the heart of the Christian West, that although Galileo fell out with the Church, he would hardly have taken so much trouble studying Jupiter and dropping objects from towers if the reality and value and order of things had not first been conferred by belief in the Incarnation."⁵

Jaki affirmed that the doctrine of creation, specifically the Creator-Creature distinction,⁶ prevented a slide into pantheism (a belief in a mingling of God and creation). The doctrine of the creation also countered a prevailing and

When historians are baffled by "the religious convictions that formerly motivated some of the finest research," it is because they "have never experienced what it means to look at the world as the product of a personal, rational Creator."

Stanley L. Jaki, *The Road of Science and the Ways to God*, p. 47.



¹ The Templeton award in 1987 was \$330,000. Reflecting his character and integrity, Jaki gave the monies awarded him to the Vatican for the benefit of Hungarian Benedictines who left Hungary after Stalinist suppression of religious activities in that nation in the late 1940s.

² Please note, my tribute to Father Jaki is an acknowledgement of his giftings primarily in the area of the history of science. This tribute is not a carte blanche endorsement of everything else he wrote.

³ In the early 1950s, Jaki, in his late 20s, was a professor of systematic theology. He had to give up teaching because a surgical mishap deprived him for years of the effective use of his vocal cords. Pope John Paul II (1920-2005) once said, after an attempt on his life, "In the designs of Providence there are no mere coincidences." This surgical "mishap" forced Jaki to retreat, for a season, into the world of books, the study of which gifted the world of scholarship and science with his writings.

⁴ All of Jaki's scientific works explicate this thesis in some manner. Two of the more important ones are *The Origin of Science and the Science of Its Origin* (Edinburgh: Scottish Academic Press, 1978) and *The Savior of Science* (Grand Rapids: William B. Eerdmans Publishing, 2000). Jaki's writings are a popularization of the prodigious medieval research done by the French physicist and historian of science Pierre Duhem (1861-1916).

⁵ Walker Percy, *Lost in the Cosmos: The Last Self-Help Book* (New York: Pocket Books, 1983), pp. 198-199.

⁶ The Creator-Creature distinction is also an emphasis generated by the life-long work of theologian and apologist Cornelius Van Til (1895-1987).

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counter-productive Classical Greek view that matter is evil and spirit is good. This view negated experimenting with the “stuff” of matter (*a posteriori* analysis⁷) because it would “offend” deity. Concomitant with this negation was the high-order Greek emphasis on a rationalistic or intuitionistic faith (*a priori* analysis). No real growth in science is possible when experimentation is discouraged. According to Jaki’s meticulous studies, the reality of God incarnate in the flesh (the “stuff” of matter) in the person of Jesus Christ and the reality of the bodily resurrection (more “stuff” of matter) of Christ circumvented the ideational errors of the Greeks and eventually engendered, centuries later, a viable birth of modern science.⁸

The next-door neighbor of a pantheistic worldview is often an eternal and cyclical cosmogony.⁹ Jaki called the academic and scientific world to attention by emphasizing that the Incarnation and Redemption of God in Christ was a unique, once-and-for-all, never to be repeated historical event. The Biblical Christian worldview postulates a *linear* view of history (start and end), thus dashing to pieces any possibility of the eternal and cyclic view. The linear view of history invokes a commitment to progress and affirms the uniqueness and value of the individual’s contribution in history. Without the *active* dynamics of a linear view of history, man is condemned to a *passive* treadmill of eternal returns.

In the realm of mathematics, Jaki was one of the first thinkers to apply Gödel’s Incompleteness Theorem to theories in physics.¹⁰ He first made this connection in 1966, where he showed that one result of Gödel’s work was to circumvent the absolutization of rationalism:

“For one thing, Gödel’s theorem casts light on the immense superiority of the human brain over such of its products as the most advanced forms of computers. Clearly, none of these machines can ever yield an answer comparable in its breadth and depth to Gödel’s theorem. For another, despair can grow only in a soil where a rigid rationalism has already killed off the seeds of intellectual humility. Such a soil cannot nurture the recognition that there is no escape from admitting that in mathematics and *a fortiori* in physics certainty is not the fruit of a ‘pure rationalistic’ procedure alone.”¹¹

In 2004, he summarized other implications of this theorem.

“Herein lies the ultimate bearing of Gödel’s theorem on physics. It does not mean at all the end of physics. It means only the death knell on endeavours that aim at a final theory according to which the physical world is what it is and cannot be anything else. Gödel’s theorem does not mean that physicists cannot come up with a theory of everything or TOE in short. They can hit upon a theory which at the moment of its formulation would give an explanation of all known physical phenomena. But in terms of Gödel’s theorem such a theory cannot be taken for something which is necessarily true. Apart from Gödel’s theorem, such a theory cannot be a guarantee that in the future nothing essentially new would be discovered in the physical universe which would then demand another final theory and so on. Regress to infinity is no answer to a question that keeps generating itself with each answer. Gödel’s theorem means, among other things, that physicists who aim at reading God’s mind will not succeed, because they cannot read their own minds in the first place. A physicist, Paul Davies, who writes a book with the title *The Mind of God*, should be the object of pity and not the recipient of a prestigious prize for progress in religion. Gödel’s theorem remains a serious assurance to all physicists that their minds

⁷ This empirical or inductive approach to the “stuff” of matter requires an emphasis on quantification; i.e., measurement and mathematics.

⁸ Jaki called for a genuine balance between the *a priori* (what goes on *inside* the mind) and *a posteriori* (what goes on *outside* of the mind). See his Gifford Lectures (delivered in 1974-75 and 1975-76) entitled *The Road of Science and the Ways to God* (Edinburgh: Scottish Academic Press, 1978) for an example. For the Biblical Christian, we can expect a connection (i.e., a unity) in the diversity of the *a priori* and *a posteriori* because God is the creator of both the human mind and the world external to it.

⁹ This neighborliness is the basic thrust of his magnum opus, *Science and Creation: From Eternal Cycles to an Oscillating Universe* (Edinburgh: Scottish Academic Press, [1974] 1986).

¹⁰ See pages 127-130 in *The Relevance of Physics* (Edinburgh: Scottish Academic Press, [1966] 1970) and the chapter entitled “Gödel’s Shadow” in *God and the Cosmologists* (Edinburgh: Scottish Academic Press, [1989] 1998). Kurt Gödel (1906-1978), logician and mathematician and friend of Albert Einstein in the 1950s, published his theorem in 1931.

¹¹ *The Relevance of Physics*, pp. 129-130.

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will forever be challenged by ever fresh problems. With a recourse to logic they would also know what to think of efforts to derive the very specific constants of physics from non-specific considerations. Insofar as mathematics works with numbers, it will remain steeped in specifics all of which raise the question: Why such and not something else? It is that question which keeps the mind awake, or rather is raised by minds not prone to slumber.”¹²

To Jaki, Gödel’s theorem proved that “the mental road to the extracosmic Absolute remains therefore fully open.”¹³ Jaki spent his life arguing that advancement of science was indebted to the Christian understanding of creation and that the scientific enterprise did not become viable and self-sustaining until the Biblical doctrine of creation formed a cultural matrix during the European High Middle Ages (13th to 15th centuries). The successes of that scientific endeavor ought to lead minds not prone to slumber to some level of appreciation of and indebtedness to the science of its origin. Finally, all Christians are indebted to Stanley L. Jaki, a man who, first and last, walked with devoted passion on the scientific road leading to the ways of God.

¹² “A Late Awakening to Gödel in Physics” (<http://theor.jinr.ru/~kuzemsky/JakiGodel.pdf>, last accessed, 25 June 2009).

¹³ *The Absolute Beneath the Relative and Other Essays* (Lanham, MD: University Press of America, 1988), pp. 12-13.