

**ACTS & FACTS FEATURES** 

# Physicist Michael Pupin: Science Leads to God

BY JERRY BERGMAN, PH.D. \* | FRIDAY, AUGUST 29, 2014

Michael Idvorsky Pupin (1858–1935) was a leading American researcher who made many scientific advances, including development of the fluoroscope and an electrical transmission system for long-distance telephone communication. A physics professor at Columbia University for 40 years, Pupin's many discoveries resulted in devices widely used today.

Pupin's oscillating circuit research made it possible to have simultaneous transmissions of several messages through one wire, and it was his inductance coil research that made long-distance telephone calls possible.<sup>2</sup> Both inventions made him quite wealthy—over one million dollars for his inductance coil alone, equal to about 30 million dollars today.<sup>3</sup> His research also laid the foundation for modern radio broadcasting. Dr. Pupin even contributed to substantial advances in X-ray technology and was also "one of the leading popularizers of science" in America.<sup>3</sup>

# **Background**

Born in what is now modern-day Serbia, Pupin learned much about life from his mother, a woman of great wisdom and mental vigor. She taught him the importance of both education and Christianity, and he described her as a pious woman who "had a rare knowledge of both the Old and New Testaments." Although barely literate, she taught her son that "knowledge is the golden ladder over which we climb to heaven; knowledge is the light which illuminates our path through this life and leads to a future life of everlasting glory." He gained from her an impressive amount of not only biblical knowledge but also an understanding of the cosmological argument for God.

"God sends sunlight to melt the ice and snow of the early spring, and to resurrect from death everything that lay lifeless in the cold grave....The same sunlight awakens the fields, the

meadows, and the pasturelands, and bids them raise the daily bread of man and beast; it also ripens the honey-hearted fruit in orchards and vineyards."

This inspired Pupin's mother to realize that the same "heavenly force" that causes lightning also carries "the humble human voice over the wires between distant peoples [and is a] proof of God's infinite wisdom which uses one means only to do great things as well as small....Who can fathom the power of God!" Pupin noted that her view of science knowledge "brings me nearer to God: and this new knowledge [of science] certainly does." When his mother died, he wrote:

Only the love of God and the friendship of man can give that spiritual power which one needs in moments of great sorrow. One day...a letter arrived from my sister, telling me that my saintly mother was no longer among the living. I vowed on that day that her blessed memory should be perpetuated as far as a humble mortal like myself could do.<sup>4</sup>

In Pupin's best-selling autobiography *From Immigrant to Inventor*, a book that won a Pulitzer Prize, he detailed his arrival in the United States as a penniless young man who worked his way through college at Columbia University and eventually became one of the most important inventor-scientists of the last century.<sup>5</sup>

In 1889, Pupin earned a Ph.D. in physics from the University of Berlin. His predilection was not for teaching but rather for research, an area in which he excelled.<sup>5</sup> His achievements were later honored by his election as president of the most prestigious science organization in America, the American Association for the Advancement of Science (AAAS). In 1920, he received the Edison Medal for his work in mathematical physics and its application to the electrical transmission of intelligence.

## **Religious Beliefs**

Pupin believed the "presence of beauty and order in the universe" were the "manifestations of the transcendent divine Word (the [Logos] of John's Gospel) that has brought all things into being." His theology of creation taught him that both God and God's creation communicate to us. Pupin even saw the laws of physics as "a manifestation of the Creator," adding that humans are mortal, but

the laws which the stars and planets obey and have always obeyed in their paths through the heavens are unchangeable....We do not know of any natural processes by which eternal things have been evolved. Their existence is the best philosophic proof that back of all this...there is the unchangeable, the eternal divinity.<sup>3</sup>

Pupin firmly believed that science can make us better Christians because science "teaches us that the Universe is guided by an intelligent Divinity," an intelligent designer that we call God.<sup>6</sup> Furthermore, science can teach us "how to cooperate intelligently with God" by

teaching men what His laws are and how to obey them. Science is proving that the human soul is the greatest thing in the Universe, the supreme purpose of the Creator. Science is leading us closer and closer to God....Science does not contradict belief in the immortality of the human soul. Science is revealing God in greater and greater glory.<sup>6</sup>

Furthermore, Pupin believed that God's creation can teach us a great deal if we humans only would humbly listen to the world and attempt to decipher its hidden meanings. Whenever we succeed, we find that each one is a divine message of a new truth, a morsel of the Infinite Truth, which is God. When Newton succeeded in deciphering the message conveyed to him by...the motion of planets around the sun, he found a new truth, the truth long hidden in the word "gravitation."

Humans may "feel intuitively that science will never penetrate the mysteries beyond it, but our faith encourages us in the belief that there behind the impenetrable veil of this eternal background is the throne of a divine power, the soul of the physical world, the activity of which we contemplate in our research of physical phenomena."<sup>4</sup>

Pupin added that scientific research brings us closer to our Creator "than any theology invented by man ever did. The cultivation of this belief is certainly one of the ideals of American science....In the face of this ideal, there certainly cannot be any conflict between science and religion."

# Language Created by God

God planted the "wonderful signaling system" called language "into the earthly clay of Adam's body." Language is the instrument by "which God's spirit communicates with the soul of man....The existence of this instrumentality is the most concrete physical evidence that God loves the soul of man and that He also loves the body." Furthermore, Pupin wrote that the most striking fact of the human body is its marvelous design

for the reception, transmission and distribution of messages. The numerous bundles of nerves which connect the eye, the ear, and every other part of our body to the central brain remind one much of telephone cables in many of their details.<sup>7</sup>

He concluded that the main goal of his institution, Columbia University, was

for the Advancement of the Public Good and the Glory of Almighty God. We are training the souls of men to seek the Lord our God by listening...to His divine messages, knowing well that by helping to decipher them they will prepare those morsels of God's infinite truth which feed the growth of human life.<sup>7</sup>

Edward Davis wrote that Pupin was "a creationist in the very basic sense that the universe cannot be understood as a self-organizing entity; the creative mind of God was an indispensable part of the explanation for the dazzling displays of order that confront the scientist on all sides." <sup>3</sup>

### Conclusion

Michael Pupin was an eminent scientist who accepted the Genesis creation account yet became a leading researcher. He published almost 50 scientific papers, held 34 patents, and was awarded 18 honorary degrees, including degrees from Princeton, Brown, and Columbia universities.<sup>2</sup> Despite modern assertions that "true" scientists are evolutionists,<sup>8</sup> actual science is fully compatible with the Word of God. Science leads to God.

#### References

- 1. Asimov, I. 1972. Asimov's Biographical Encyclopedia of Science and Technology: The Lives and Achievements of 1195 Great Scientists from Ancient Times to the Present, Chronologically Arranged. Garden City, NY: Doubleday, 505.
- 2. Davis, B. 1938. Biographical Memoir of Michael Idvorsky Pupin 1858-1935. In National Academy of Sciences of the United States of America Biographical Memoirs, Volume XIX, Tenth Memoir. Washington, D.C.: National Academy of Sciences, 300-323.

- 3. Davis, E. 2009. Michael Idvorsky Pupin: Cosmic Beauty, Created Order, and the Divine Word. In Eminent Lives in Twentieth-Century Science & Religion. Rupke, N. A., ed. Frankfurt, Germany: Peter Lang, 295-316.
- 4. Pupin, M. 1960. From Immigrant to Inventor. New York: Scribner.
- 5. Wills, A. P. 1935. Obituary: Michael Idvorsky Pupin. Science. 81 (2107): 475.
- 6. Wiggam, A. E. 1928. Exploring Your Mind with the Psychologists. New York: Blue Ribbon Books, 384-407.
- 7. Pupin, M. 1922. A Herdsman's View of Human Life. Columbia Alumni News. 13 (13): 197-199.
- 8. Thomas, B. Nye vs. Ham Debate: No True Scotsman(http://www.icr.org/article/7897/). Creation Science Update. Posted on icr.org February 7, 2014.

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<sup>\*</sup> Dr. Bergman is Adjunct Associate Professor at the University of Toledo Medical College in Ohio.