Cosmos & Creation 2017

By Tom Sheahen

Loyola University in Baltimore hosted the annual *Cosmos & Creation* conference on June 9 – 11. The main speaker this year was Professor Lawrence Principe of nearby Johns Hopkins University. Principe has taught on the subject of religion and science for many years; he is noted for a CD set of 12 lectures on the topic, part of the *Great Courses* series produced by *The Teaching Company*. His two major lectures at *Cosmos & Creation* dealt with the themes of conflict between religion and science, and *Scientism* in particular.

The title of Principe's first public lecture was "John William Draper, the 19th-Century Originator of the "Conflict Thesis." This lecture was primarily about history, mainly in the late 19th century. He began by posing the question "What massive change came about between the 18th and 20th centuries?" Earlier, the relationship between science and religion was cooperative and productive. Today, there are *no* historians who believe there was *always* a conflict. But many scientists still think it's impossible for religion and science to co-exist.

The two major architects of the "Conflict thesis" were John William Draper and Andrew Dixon White (founder of Cornell U). Draper's book was published in 1874; White's 2-volume tome in 1896. (Many of White's views were published serially in *Popular Science Monthly*.) They were both motivated primarily by an aversion to the large number of European immigrants arriving in those years, who were disproportionately Catholics. The "warfare" model didn't come from the Enlightenment; it popped up suddenly in 1869-1873. Draper's book found a receptive audience among like-minded people.

Andrew Dixon White was motivated by additional factors, notably the Land Grant law of 1861. Previously, colleges were affiliated with church denominations (even Harvard). White manipulated the money of New York State and got to build a non-denominational college at Cornell; the "warfare" assertion helped to justify his funding request. This and related topics were covered as Professor Principe reviewed the history of that age.

In the Q&A session that followed, several of these themes were explored in greater depth. The Victorian era was a time of great technical progress, and with Darwin's new *Theory of Evolution,* science was ascendant at the expense of religious faith. Draper (at New York Universitry), who really hated immigrants, was writing for comfortable Protestants in New York in that time frame. Meanwhile, White was in a constant struggle with Cornell's trustees, who wanted it to be affiliated with the Episcopalian religion. The "great experiment" of Cornell was to allow women to study there.

Gradually, a belief built up to perpetuate the "conflict" notion. By the mid 20th-century, lots of historians of science trusted the statements of Draper and White. Today, nobody teaches the "warfare" model, but people pick it up externally. "Folklore" is the best explanation for how these ideas persist generation after generation. The warfare going on today is between a frightened public and scientists who feel "if we *can* do it, we *should* do it." (An example is embryonic research.) Ever since the atomic bomb, people have been wary of technology.

Continuing the exchange the next morning, the members learned more about the origin of the "conflict thesis." Draper and White caused the crystallization of the events we see today, such as Richard Dawkins vs. the Creationists. Draper and White never met nor correspond; Draper died in 1880, White lived to 1918. Neither mentioned the Enlightenment in their writings. Hostility toward religion peaked with the French revolution, but that was objectionable to the English-speaking world, so in the early 19th century, conflict wasn't there. When Darwin's work was published (1859), there followed a famous debate between Wilberforce and Huxley (1860). Draper gave the preceding paper at that conference. Draper disliked the *randomness* in Darwin's theory. Conflict was not obvious at the time. The "triumphalist" account was written 25 years later by Huxley, who melo-dramatized it to boost his own legend.

Today, there are much better models of the religion-science interaction. When people of a religious commitment make scientific contributions, it helps overcome the "conflict thesis." Most people reject complete naturalism, known as "Scientism." But the religious fundamentalists favor the "conflict" model, and their position reinforces conflict. Scientism is also a form of fundamentalism, intent upon excluding any other way of thinking. Islamic fundamentalism comes from Wahabbi-ism.

Lawrence Principe's second public lecture (on Saturday morning) was entitled "Present-Day Scientism, Its Emergence, Historical Background, Motivation and Aims." *Scientism* is the exclusionary and reductionist belief that science gives the only valid pathway to knowledge. Any questions science can't answer are either meaningless or not worth answering. Anything that is not observable has no meaning. One example is the attempts by socio-biologists to reduce religion to genetics.

Principe described some of the long-term effects stemming from Draper and White. We wonder why the myths originated by Draper and White don't die out. It's because people are willing to repeat them. For example, Carl Sagan's TV series *Cosmos* (and its recent re-make) took his information out of Draper and White. The sequence on Giordano Bruno is a good example: it portrays religion in the worst possible light. Draper and White created a litany of martyrs, where certain scientists were treated as persecuted saints. Today, these myths have become a cornerstone of Scientism.

In the early 19th century, the definition and identity of a "scientist" was just coming into existence. Later, Draper and White created respectability for scientists by setting them up as high priests of a new knowledge: scientists had displaced religionists at the pinnacle of knowledge. Draper and White transferred back into time the imagery of the period. They imagined that scientists were *always* against the church. The assumed these two disparate groups *always* existed. In the late 19th century, the anti-immigrant themes enhanced the popularity of what Draper and White wrote. It gained credibility in Europe, and helped to establish more secular governments.

Early in the 20th century, those myths gave the advantage to Scientism. After WW1, some thought science could bring peace; Sigmund Freud thought that religion should be abolished as a relic of the past. However, the First World War was so horrible that many people were terrified

about technology; they blamed the horrors of WW1 on science. In the USA, fundamentalism emerged on the eve of WW1, and gained strength later on. This accompanied the widespread moves to the city; as a reaction to being displaced, people turned to fundamentalism. Only in the 1960s did fundamentalism shifted its focus to Biblical literalism.

A key player in those days was H.G. Wells, who wrote *The Outline of History* in 1919. It cast religion as the enemy of human progress. Wells saw science and technology on one side, and religion on the other. In 1923 and 1933, he published other books about the future of mankind. In one, a world-wide collection of scientists take over and bring Utopia. Wells also wrote a book (in 1914) that foresaw a science-led Utopia. Subsequently, *Brave New World* refuted such utopias. Wells considered it a "blasphemy against science. " Julian Huxley conceptualized "Scientific humanism", which was recognized as a new religion in 1929.

This was all going on at the same time as the Eugenics movement. J.B.S. Haldane also endorsed this Scientism viewpoint. From WW1 to 1960, people argued over life as a struggle between science and religion. Draper and White (and Wells) set up the playing field for the fight between science and religion. Later, in 1953, Watson and Crick said "We've discovered the secret of Life." They thought life was reduced to a molecular string.

There are plentiful examples today of prominent people who still buy the Draper and White narrative. In *The Grand Design* Stephen Hawking writes "Philosophy is dead." Stephen Weinberg is very arrogant, dismissing Plato as "silly." He wants to celebrate modern science, but is profoundly ignorant of the history of science.

The foundation mythology is still there – it's needed to prop up their own self-identity. The myth has new fervor; they're saying science is supreme in knowledge. Those scientists today are surprised to find themselves under attack by society.

What we are witnessing today is a struggle between scientism and fundamentalism. This arises from their insecurity about their weakening place in society. Scientism is a form of fundamentalism: both groups are arrogant! They compete to give trivial and dismissive answers to very complex questions. Both sides try to speak for people they don't actually represent. Scientism doesn't speak for all scientists, and fundamentalists done speak for all religions. It's a waste of time to talk to those on the extremes.

In closing, Principe stressed the importance of getting the history right. We must strip away the rhetoric and myths. The myth began in the 19th century and was co-opted in the 20th. We must never accept the simplistic story told by the myth advocates.

Again, a lively Q&A period followed his lecture. Topics such as communications by scientists to the public were examined, and the need for objectivity by scientists was brought out. Principe emphasized that science is a human endeavor, and the notion that "science = truth" is incorrect. The methodology of *both* science and religion begin with a series of faith-statements, setting forth the basic principles.

Another Q&A topic was about why the culture is so polarized? Simplistic and extremist voices are commonly heard. Both Fundamentalism and Scientism have a component of

"Populism." There are people out there who are non-religious, but no less dogmatic. The scientific weakness of the journalism profession was noted. The discussion then turned to finding ways to convey to students a "bigger picture" of the purpose of their education. Science isn't just a catalog of technology; science is a story about seeking the truth.

One long-standing practice of *Cosmos &Creation* conferences is that a member of the organization gives a talk (on a different subject) after lunch on Saturday. This year, Antonei Csoka of Howard University spoke on "Human Life-Extension in a cosmic Context." Space does not permit a full description of that forward-looking and very interesting talk. However, Csoka addressed the enduring questions of why are we here, and why do we age, why we want to extend our age. Although individuals die, the germ-line keeps on going. Regenerative medicine is working on re-programming cells so that they can keep on dividing indefinitely.

Cosmos & Creation is an organization that has a lot in common with ITEST. Begun in 1980 by Fr. Tom King SJ and Fr. Jim Salmon SJ, for 35 years they have held an annual conference at Loyola on a weekend in June. Decades ago, the attendees were nearly all Jesuit priests teaching sciences at many universities; but over time the membership has evolved towards more laity, often (but not necessarily) affiliated with universities. The current co-directors are Loyola Professors Richard Blum and Robert Pond. In 2018 the conference will be on June 8 – 10, featuring Quantum chemist Michelle Francl-Donnay on the parallels between faith and experimental science.