FEATURE: Is Scientism Science? (First in SERIES of 2)

VOICE: Professor, what is "scientism"?

PROF.: It's a philosophical idea, masquerading as science. It confuses a lot of

people, so let's talk about it.

FORMAT: THEME AND ANNOUNCEMENT

VOICE: Dr. Ian Hutchinson is chairman of the department of Nuclear Science and

Engineering at the world-famous Massachusetts [mass-uh-CHOO-sets]

Institute of Technology.

PROF.: He studies the reactions that occur in the sun and stars, researching ways to

generate electricity in ways that will not pollute the environment. His department is rated number one in the United States in its specialty.

Dr. Hutchinson recently spoke on the campus of the University of

Chicago, at a symposium entitled "The Redemption of Reason."

VOICE: "Redemption" literally means "buying back" or "rescuing." Why does

reason need to be rescued?

PROF.: A large part of the world's intellectual and educational establishment has been

*captured* or taken prisoner by confused ideas. If we value truth, we need to

be rescued from that falsehood.

Dr. Hutchinson says, "I think it is fair to say that when the relationship between science and faith is discussed today, the dominant view is that they are in conflict. ...[But] This characterization...is a travesty of the logical and

historical relationships that actually exist between these areas of life."

VOICE: What evidence does he have for that statement?

PROF.: He starts with historical evidence. He says the "conflict" idea was not the

majority view until the mid 1800s. At that time, the conflict myth was, in his words, "initially promoted largely by those who felt that this was a war that

science was in the process of winning, or had already won."

VOICE: If this idea hasn't always been dominant, who made it popular?

PROF.:

Probably the best-known proponent of this position was Andrew Dickson White, who published in 1896 the famous book entitled *A History of the Warfare of Science with Theology in Christendom*.

White claimed that theologians stubbornly fought science, but eventually the sheer force of scientific evidence overthrew that resistance and produced greater knowledge and enlightenment. White kept readers' interest by providing a cast of martyrs, heroes and villains; intrigues and battles; and all the elements that go to make a good story.

VOICE:

How accurate was this "history of the warfare of science with theology"?

PROF.:

After researching that question extensively, Dr. Hutchinson calls it "more a compendium of propaganda..., than...a work of scholarship." White was president of the newly-founded Cornell University. He and his patron were determined to establish a university in which religious doctrine would have no place.

VOICE:

Are you saying that they were biased? – that they resolved not to follow the truth, wherever it led?

PROF.:

Yes. Dr. Hutchinson continues, "... White's book has...been shown to be full of errors, misinterpretations, and in some cases apparently fabrications."

For example, White claimed that sixteenth-century European theologian John Calvin opposed Copernicus' idea that Earth moves around the sun. White's book says Calvin referred to the ninety-third Psalm, which says God, quote, "has fixed the earth immovable and firm..." (Psalm 93:1b). He claimed the theologian asked, "Who will venture to place the authority of Copernicus above that of the Holy Spirit?"

Harvard University historian of astronomy Owen Gingerich comments, "No doubt White's quotation from Calvin increased the readership of Calvin's works," for it set historians of science off on a frustrated search to find where Calvin had mentioned Copernicus. He never did.

VOICE:

So White made his propaganda points by inventing "facts" that were not really factual?

PROF.:

Yes. Dr. Hutchinson continues, "But in spite of his weak scholarship, his campaign to make Christianity look like a loser in a battle with science, ultimately succeeded in deceiving much of the public."

VOICE:

Does he give an example?

PROF.:

Yes. Nobel Prize-winning physicist Dr. Steven Weinberg spoke at the graduation of Dr. Hutchinson's son in 2002. Dr. Hutchinson remembers, "The gist of his commencement message was to welcome the students to the Enlightenment, explicitly [to] disparage all religions as superstition and medievalism...while praising science. Although I think White would probably be horrified at Weinberg's position, it seems to me, and evidently to Weinberg, to be the logical conclusion of White's [propaganda] campaign."

VOICE:

If Dr. Hutchinson doesn't believe there is "warfare" between genuine science and genuine Christianity, where is the fight?

PROF.:

He answers, "Insofar as there is a confrontation that could be called warfare, it is a battle not so much of facts as of *world views*."

Part of the problem is a confusion between science and *scientism*. Scientism is not science.

VOICE:

How does Dr. Hutchinson define "scientism"?

PROF.:

His short definition is "the philosophical position that science is all the true knowledge there is."

VOICE:

Do some philosophers really believe "science is all the true knowledge there is"? – that no other knowledge exists?

PROF.:

Yes. Dr. Hutchinson explains, "Scientism is the belief that the methods of science...are the only source of true knowledge. ...aspects of this belief are sometimes called Materialism..., and sometimes Naturalism..."

He adds, "...[T]here *is* an intellectual confrontation that could reasonably fit the warfare metaphor. It is not between science and theology, however. It is between scientism, ...and other faiths, including Christianity."

VOICE:

In other words, much of the so-called "warfare" between science and faith is caused by misunderstanding or misusing the word "science."

PROF.:

In the part of his lecture that he calls "Science without Scientism," Dr. Hutchinson says, "I believe that there are some characteristics of science and scientific knowledge that distinguish it from other forms of knowing. Modern science starts with the fundamental presupposition that the world can be described by models which are basically invariant as to time or place. "If we do an experiment in one place on one date, it ought to be possible to get the same result if someone else does it somewhere else at some other time.

VOICE: So the first characteristic of genuine science is *reproducibility*.

<sup>1</sup> They are the same in every location and at every time.

PROF.:

Yes. Dr. Hutchinson continues, "A second characteristic is that science restricts its attention to matters on which it's possible for rational observers to *agree* on the results of any experiment. The results of a scientific experiment, even if not necessarily its interpretation, have to be in a form that is universally accepted and understood by scientists. I will call this requirement of universal comprehension *clarity*..."

VOICE:

So "reproducibility" and "clarity" are the basis on which all genuine science is built.

PROF.:

Sometimes scientists claim to have discovered something, but nobody else gets the same results. For example, in 1989 two electrochemists called a press conference to announce that they had achieved controlled fusion at room temperature.

Dr. Hutchinson reacts, "Now, my own main research interest is in controlled fusion energy, the energy source of the sun and stars. [This announcement] was as if an aircraft designer had read one day in the morning paper that others were claiming to have discovered anti-gravity! It was a claim that, if true, would make obsolete the whole field in which I was working – but a claim contradictory to many principles of physics..."

He continues, "We soon could show that there was something fishy about the claims, and no reproducible results. Within less than a year, it was practically settled."

VOICE:

So that's an example of the way science relies on the principle of reproducibility to settle matters that are in dispute.

PROF.:

One important element of scientism has been dubbed by the late Dr. Donald MacKay "nothing buttery." This is the view that if there exists a scientific explanation of a situation, then *no other explanation* can be valid.

VOICE:

What's an example of "nothing buttery"?

PROF.:

We observe that "man is a complicated biochemical machine." The "nothing buttery" interpretation says "man is *nothing but* a complicated biochemical machine." The innocent-sounding phrase *nothing but* claims it's nonsensical to think about a subject at any level other than the simplest level.

Dr. Hutchinson continues, "This aspect of scientism is inconsistent with any kind of meaning, including the very act of thinking itself. If my brain is nothing but a complicated set of interacting biological components, then there's no justification for attributing any meaning to my thoughts – *including the thought I just expressed*."

VOICE:

So "nothing-buttery" scientism contradicts itself!

# TRUTH IN THE TEST TUBE

PROF.: Dr. Hutchinson says, "I believe that the way to make sense of the world and

see the scientific and non-scientific descriptions in correct context is to give

full credit to the different levels of description."

VOICE: What does he mean by that?

PROF.: He elaborates some of the levels on which a person can describe himself: "So

yes, I am an assembly of electrons and quarks. Yes, I am a mixture of a wide variety of chemical elements – predominantly hydrogen, oxygen, and carbon. Yes, I am a wonderful system of biochemical processes guided by genetic codes. Yes, I am a vast and astoundingly complex organization of cooperating cells. Yes, I am a mammal, with hair and warm blood.

"Yes, I am a person, husband, lover, father. Yes, I am a sinner, saved by grace.

"I am *all of these things*. And not one of them is less true than any other. Not one of these descriptions rules out the others, once we set scientism aside."

VOICE: So scientism is not science. Science is not scientism.

PROF.: Right. Genuine science does not claim that science is the only genuine

knowledge. Only the mistaken philosophy of scientism believes that.

FORMAT: THEME AND ANNOUNCEMENT

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