

The K.F. Stone Weekly

(Formerly "Beating the Bushes")



March 09, 2015

I'M NOT A SCIENTIST, BUT . . .

Down here in Florida, our governor, Rick Scott, is well-known for a couple of things.

First, he is the fellow who, as CEO of Columbia/HCA oversaw what was until recently, the largest health care fraud in this country's history. And for crimes ranging from billing Medicare, Medicaid, and other federal programs for tests that were not necessary or had not been ordered by physicians to attaching false diagnosis codes to patient



Governor Rick Scott

records to increase reimbursement to the hospitals, Columbia/HCA was fined the gargantuan sum of \$1.7 billion.

Second: Scott is the fellow who, when asked about anthropogenic global warming, famously answered "*I am not a scientist.*" At the time the governor mouthed this inanity, more than one pundit noted that his statement was a rather pathetic dodge. The question, obviously, isn't whether Rick Scott *is* a scientist; the question is whether he *believes* scientists. Imagine a senator, representative

or candidate for office responding to the question "Do you think the U.S. should put boots on the ground in Syria or Iran?" by saying "Well, I'm not a general . . ." Or "Do you believe the deficit will go down if we once again lower taxes for the wealthy?" by answering "I'm neither a mathematician nor an economist." Put into that context, it sounds pretty sophomoric, no?

Scott, acknowledging to a general *WTF?* response on the part of the public, did agree to a meet-and-greet with a handful of scientists -- who were given approximately 20 minutes to educate the governor on the reality of climate change. According to one of the attendees, geologist and University of Miami professor Harold Wanles: *"He actually, as we were warned, spent ten minutes doing silly things like prolonged introductions, but we had our 20 to 21 minutes, and he said thank you and went on to his more urgent matters, such as answering his telephone calls and so on. There were no questions of substance"*

In light of the above, permit me to borrow from -- and hopefully improve upon -- Governor Scott's flaccid cop out and freely admit that *"While I am not a scientist, I am frequently humbled by their discoveries, and stand in absolute awe of their understanding of the universe."*

"So Kurt, what brought all *this* about?" I hear you ask.

This past Monday (March 2, 2015), National Public Radio's Tom Ashbrook's *On Point* spent a hour discussing black holes and the worlds of astrophysics and quantum mechanics. His guests included two professors of physics and astronomy as well as the managing editor of Space.com. To say the least, the hour was spellbinding; it was also overwhelmingly humbling. Professors [Harrison](#) (Cal Tech) and [Natarajan](#) (Yale) and writer Tariq Malik of [Space.com](#) are at the cutting edge of discoveries about the universe. Astronomers have detected an extremely massive black hole. In the words of one astronomer, it is "wildly huge." It has a mass equivalent to 12 billion of our suns. Now according to what little I've read and can grasp (remember, *I am not a scientist but . . .*) all the big galaxies, our own, the Milky Way included, have black holes at their core. Ours is approximately 4 million times the mass of the sun. This newly detected black hole is 12 *billion* times the sun's mass; a number to be sure, but far, far beyond comprehension. And, to ratchet up the incomprehensible by a factor of God knows how much, Ashbrook's guests described the newly-detected black hole as "super luminous" -- more than 40,000 time as bright as our galaxy. (*Note to Creationists and all those whose knowledge of the universe's genesis comes from Genesis: don't read the rest of this essay. . .*)



What is more, the three scientists posited that this recently-detected black hole "dated back to the very early era of the universe," upwards of 13 billion years. In doing research for this essay, I came across an article entitled [Gigantic Black Hole Discovered From the Dawn of Time](#) published last month's *National Geographic*. At the article's outset,

author Michael Lemonick, a senior staff writer at [Climate Central](#) writes: *"It's not the biggest black hole ever found, but it's astonishingly young. The giant appears to have swelled to its enormous size only 875 million years after the big bang, when the universe was just 6 percent of its current age."*



Lemonick's article lead me to a recent online issue of the journal *Nature*, where I attempted to grok a brief article entitled *An ultraluminous quasar with a twelve-billion-solar mass black hole at redshift 6.30*.

After it dawned on me that I had been reading and rereading the same sentence four times, I decided that I had reached the upper limit of my ability to comprehend what in the heck the author was talking about -- remember, *I'm not a scientist!* -- and just sit back and drink in the incomprehensible enormity of time and space and utter insignificance of the earth in an expanding universe.

It's an awful lot to contemplate. It's also surpassingly humbling. I mean, consider: our planet is part of a single solar system. And as of October 2013, the first man-made object cleared that system -- and that object, [Voyager 1](#), took 36 years traveling at a constant speed of more than 38,000 miles per hour (you do the math -- that's 38,000 MPH times 315,360 hours) in order to do it. Now contemplate the fact that it would take Voyager another *40,000 years* to reach the closest star, and one begins to get a notion of the vastness of a single galaxy. And, according to the best estimates of astronomers, [there are somewhere between 100 and 200 billion galaxies in the observable universe](#). This means that there must be hundreds of millions -- if not billions -- of habitable planets in the universe and that there are undoubtedly sentient beings out there whose evolutionary arc makes us seem like lowly earthworms by comparison.

Trying to put all this into perspective tends to make one feel infinitesimally small and utterly insignificant . . . which, it seems to me, can be a very good thing. For in an age where every human misstep merits a screaming headline and that which is of all-consuming importance today is quickly forgotten tomorrow; where celerity and celebrity have elbowed aside contemplation; where increasingly we see ourselves as masters of the universe possessing absolute, infallible knowledge of all things great and small -- a perspective based on humility can save us from ourselves.



I may not be a scientist, but I'm here to tell you that it's a vast, vast universe out there, of which we are but an electromicroscopic mote. Kind of puts things into perspective, no?

Ya got that Governor Scott?

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