

Twitter Thread by PEG



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Time to talk about one of my pet issues of concern: string theory.

String theory doesn't work, after decades of work by the world's top physicists. At this point, even many mainstream physicists will admit it (most of them privately). They will justify it with by saying things like "We need to keep working on it" or "It's the only thing we ...

... have" (of course, if you don't look for another theory, you're not going to find it).

Which begs two obvious questions: why doesn't string theory work? Why does it remain practically the only mainstream theory when it hasn't worked for decades?

I have my own theory, which I can't prove, but which makes sense of the facts as we have them: string theory is Atheist Epicycles.

You see, string theory presupposes a multiverse, and a multiverse seems to be the only way to make sense, from an atheist perspective, of the ...

... fact that the Universe really (really really) looks like it's fine-tuned for human life. And that makes people really uncomfortable, and so they look for a theory that validates atheism. I'm arguing that the phenomenon is unconscious or semi-conscious in most cases, but ...

... these forces of the human mind are powerful!

(Anecdotally, certainly, the power of denial displayed by many atheists towards those coincidences of life that seem to suggest an organizing intelligence at work in the Universe is quite impressive.)

There's another, related problem with the multiverse, which is that it's not a falsifiable theory, which would make it, strictly speaking, unscientific (i.e., "not even wrong"). That this project has nonetheless occupied the time of countless serious scientists for decades is ...

... hard to make sense of unless you understand it as a fundamentally fideistic project.

Again, mainstream physicists will admit this. The leading French cosmologist and philosopher Aurélien Barrau has said,

essentially, yes, string theory doesn't work with the scientific ...

... method, so we should...look for alternatives to the scientific method. (I interviewed him about this, I am not making it up!)

Again: when a scientist says, I have to choose between my theory and the scientific method, so I choose the theory, we have to conclude that ...

... something significant and alarming is going on, and something that (almost tautologically) has more to do with faith than science.

So if string theory is a fideistic project to vindicate atheism, and ignore the scientific method in the process if need be, reasonable people should conclude that not only it doesn't work, but **can't** work in principle, and should be abandoned.

So why don't we?

By the way: this isn't just a theoretical problem (no pun intended). As [@EricRWeinstein](#) and others have pointed out, many of the great technological innovations of the first half of the 20th century ultimately descend from the late 19th-early 20th c advances in theoretical ...

... physics. Since roughly the 1970s, the physics community has embarked on the string theory project; meanwhile, since roughly the 1970s, technological progress has basically crawled to a standstill. It's not crazy to suppose that these two phenomena are linked.

The problem here is that if you kick metaphysics out the front door, it will climb in through the back window.

In contrast to the Atheist Epicycles, a noteworthy thing I've noticed is that the few brave physicists who have put forward alternative theories to string theory...

... have been guided by the idea of Beauty. They ask: "What would be the most beautiful theory?" and then try to work out the math.

This idea--that the most beautiful theory must also be the best theory--has for centuries guided the most brilliant scientific minds and has...

... very often been vindicated by the experimental standard by which, ultimately, scientific theories must be judged.

But this fruitful idea is also a dangerous idea since, logically, the idea that Beauty is convertible with Truth seems to imply that the Universe is ...

... animated by an intelligence; not just an intelligence, but a rational intelligence, and not just a rational intelligence but a **creative** and rational intelligence.

If it's true that this idea is particularly fruitful (which, certainly historically and empirically, it ...

... seems to be), and if it's true that many or most scientists forbid themselves to think this thought (as the mainly religious, or at least theistic/deistic, scientists of centuries past did not) for fideistic reasons, then we should expect the progress of science to slow down.

And so we arrive at a delicious paradox: getting faith out of science has brought in a much more damaging fideistic faith.

And a realization that science is not neutral. The process by which experiments answer the questions that theory poses may be "neutral", but you're not going to get answers to questions you don't ask, and the process by which we come up with which questions to ask is not...

... and cannot be neutral; it is inevitably bound up with psychology, shared cultural assumptions, even if they are only implicit and unconscious (and the blinders are all the more effective when they are implicit and unconscious).

Asking the question: "What would it mean if the Universe was purely meaningless?" has produced garbage, and yet we press on. There's at least some grounds for asking "What would it mean if Beauty was Truth and Truth Beauty?" but we are afraid to ask.

Which would imply, in turn, that the idea that science is basically "functionally atheist", one accepted by most mainstream religions is, like Newtonian physics, true in one context but not true in another.

And it might imply, also, that a shared cultural atheism is a dessicator of science, since it forbids asking fruitful questions, and perhaps that a shared religious culture is necessary for scientific progress. Maybe, maybe not.

It does seem to imply that the next Copernicus, if and when he comes, will be, like the historical Copernicus, a religious believer or at least some kind of theist.

Addendum: as this article in Nature shows, Barrau's position that if the scientific method is an obstacle to your theory, you should junk the scientific method, is not fringe: <https://t.co/JxYZKdnDKu>