

# Re: Epistemology 201: The Science of Science

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Albert Wagner wrote:

- > *False. It not only has nothing to do with supporting religion; It, in*
- > *fact, attacks the religion of materialism, reductionism and*
- > *instrumentalism.*

All of which have excellent empirical track records. There are no alternatives with as good a record of producing knowlege of the world, and technology. Our best medical techniques are based on the reductionist paradigm.

>

- > *What it has most to do with, is evolution of the Mind; the whole purpose*

What Mind. Do you have any evidence of a Mind in a body you do not own?

- > *of the mind in evolutionary terms is the building of better and better*
- > *models of reality, so that prediction is based on reality, not*
- > *mathematical abstractions nor illusion Knowing the truth about*
- > *reality has much more survival value than coincidentally predictive*
- > *mathematical theories, modified after the fact to accommodate what*
- > *scientists/engineers discover.*

Note carefully that facts drive theories. That is as it should be.

>

- > *But poorly done and interpreted, it spawns religion, e.g materialism and*
- > *reductionism. (Not to mention anti-theism)*

Materialism and reductionism are empirically falsifiable, so they are not religious principles. They are epistemological principles based on experience with techniques that have produced the best results (so far).

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- > *If they were in fact open to something better and less vigorous in their*
- > *religious defense of the status quo, then what you say might be*
- > *believable. As is evident by the pseudo-scientists and*
- > *pseudo-mathematikers on this NG, it is not.*

There is no status quo. Science (especially physics) is progressive.

- > *Of course it can be done. But it is a project that was discarded in*
- > *favor of an instrumentalist approach to theories.*

And for good reason. Instrumentalism works and other approaches do not

- > *Now Science dances to the tune of mathematicians, i.e. the tail is wagging the dog.*
- > *Instrumentalism in the design of theories is a great evil, in that it*
- > *avoids empirical falsification and allows theories to grow so bloated*

Not true. Current physical theories are falsifiable. They have been vigorously tested by experiments designed to break the theories.

- > *and unwieldy that it becomes almost impossible, politically, to back up*
- > *and take another fork in the road. It removes from science the proper*
- > *goal of discovery of Nature and places it in servitude to mathematical*
- > *theorists, frantically attempting to support a crumbling and misleading*
- > *theory.*

The goal of physics is to make correct predictions of measurements that will be found under specified circumstances. If you want good predictions, do physics. If you want Truth, go to Church.

- >
- > *I don't think that it is 'usual', but it does often happen. Rather than*
- > *discard such criticisms out of hand, though, why not explore the deeper*
- > *roots of the criticism, e.g. the evolutionary drive of all living things*
- > *to build better models of Nature?*

Evolution is not progressive. It is a way of tracking the environment. The goal of evolution is NOT perfection. It is fitness to environment, if it has a goal at all.

- >
- > *I encountered a similar phenomenon in programming, what is called today*
- > *something like 'agile programming', where, after the heat of creation,*
- > *in haste to capture a thought on paper, a clumsy and awkward*
- > *implementation of a brilliant idea is 'collapsed' or 'condensed' in a*
- > *recursive procedure of rewrites into a simpler and more elegant*
- > *implementation. The 'simplicity' of the result is deceptive, in that it*
- > *captures a great deal of complexity, in a tiny, beautiful and elegant*
- > *algorithm. Furthermore, the process of 'collapse' is guaranteed to*
- > *result in a generalization that has considerably more utility than was*
- > *originally intended.*

Programming is not like physics. Physics has to be a matrix of guesses about Nature. Nature is not under our control. It is what it is and it is the job of physics to come to terms with it. Programming is the formulation of algorithms which are products of human consciousness from the git-go. The Programmer is God and the Machine is His chosen Instrument. Programming is essentially deductive in nature. Physics is inductive and abductive. Two completely different undertakings.

That is part of your problem. You understand programming well enough. You do not understand physics. You understand mathematics even less. You are a mathematical ignoramus. Not that there is anything shameful about ignorance. We are all born ignorant. What is shameful is refusal to recognize one's ignorance and take appropriate steps to reduce it.

>

> *Oscar Wilde? What did he know of scientific theories?*

Very little, but even a broken clock tells the right time twice a day.

> *You are not even wrong. You are totally off track. I already have a*

> *religion, or if you prefer a Myth, that offers a 'significant story that*

> *gives meaning and purpose to life' and it is in no way dependent on*

> *scientific explanations of anything.*

Life, in general has no purpose. Each of us in particular provide whatever purpose there is to our own individual lives.

>

> *Your statement above erroneously assumes your premise. As I said*

> *before, you are so far off track that you are not even wrong.*

Your longing for Truth indicates your quasi-religious biases. If a young man does not seek religion and righteousness in his youth, he has no heart or soul. If he still seeks it in his adulthood or old age he has no sense.

The secret of success is to understand that our existence is absurd. It is a tale told by an idiot full of sound and fury, signifying nothing.

Our existence is accidental. We have no right to be here and behind our backs the Universe is laughing at us.

In a million years the jungle and the weeds will have swallowed up our greatest accomplishments and our grand buildings will be rubble and rust. We are just dust in the wind.

Bob Kolker