

# Re: Epistemology 201: The Science of Science

**Source:** <http://sci.tech-archive.net/Archive/sci.cognitive/2005-02/1994.html>

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**From:** aeo6 (aeo6\_at\_cornell.edu)

**Date:** 02/17/05

Date: Thu, 17 Feb 2005 11:38:49 -0500

Albert said:

> *Tony Orlow (aeo6) wrote:*

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> > > > >

> > > > > > *Albert said:*

> > > > > >

> > > > > >

> > > > > > > *Tony Orlow (aeo6) wrote:*

> > > > > > >

> > > > > > >

> > > > > > > > *Albert said:*

> > >

> > > <snip>

> > >

> > > > > > > > *Cause and effect have no inherent dependence on time or a concept*

> > > > > > > > *of time, but rather only on sequence. We define what comes*

> > > > > > > > *earlier in sequence as the cause of what comes later in sequence.*

> > > > > > > >

> > > > > > > > *So, now time is a mental construct? Maybe sequence is too, and space,*

> > > > > > > > *and events.*

> > > > > >

> > > > > > > *Careful. You are dancing perilously close to solipsism.*

> > > > > >

> > > > > > > *Why do you think time is not a real physical dimension?*

> > > > > >

> > > > > > > *Did I say that? Do you think time is just a 4th spatial*

> > > > > > > *dimension? Or are you just asking why I said above that cause*

> > > > > > > *and effect have no inherent dependence on time?*

> > > > > >

> > > > > > > *Well, just for the hell of it, let's create a gedanken: if time is*

> >>>>>> *an illusion and all that exists is sequences of cause and effect,*  
> >>>>>> *then we can have backward causality without fear of time*  
> >>>>>> *paradoxes, and without the silliness of a photon being a*  
> >>>>>> *probability wave that 'collapses' into a particle.*  
> >>>>>>  
> >>>>>> *Just because you can turn the laws inside out and roll time backwards*  
> >>>>>> *conceptually doesn't mean that time doesn't exist.*  
> >>>>>>  
> >>>>>>  
> > *Albert: I never stated that time doesn't exist. Nor have I said anything*  
> >  
> >>>>>> *about rolling time backwards. A gedanken is a hypothetical for*  
> >>>>>> *exploring 'what if' questions.*  
> >>>>>>  
> >>>>>>  
> >>>>>> *If you have*  
> >>>>>> *established physical law, you can extrapolate backwards to see, for*  
> >>>>>> *instance, where Jupiter was in the year 1020. If the laws were all time*  
> >>>>>> *symmetric, then I would consider time to be more like space.*  
> >  
> > *Tony: But time has unique characteristics that seem to be quite real.*  
> >  
> >>>>>>  
> > *Albert: Yes, (sigh) a lot of things \*seem\* real.*  
> >  
> >>>>>>> *I don't see the silliness of waves and particles turning into each*  
> >>>>>>> *other. Particles are just packets of waves.*  
> >>>>>>>  
> >>>>>>> *I had no idea that you so slavishly accepted scientific authority*  
> >>>>>>> *when it came to truth.*  
> >>>>>>>  
> >>>>>>>  
> > *Tony: So, you are asserting that time exists, but isn't real?*  
> >  
> >>>>  
> > *Albert: Come on, Tony. Setting up a strawman consisting of what I never*  
> > *asserted is neither helpful nor fair.*  
> >  
> > *So, now you are asserting that you didn't say that time doesn't not*  
> > *(does) exist, and that you didn't imply that it seems real but isn't, or*  
> > *that your original assertion wasn't that time isn't real or necessary?*  
>  
> *Can't you read for comprehension? As has smoking weed affected*  
> *your short term memory? Why do I have to keep pasting the*  
> *following statement over and over:*  
>  
> *"Cause and effect have no inherent dependence on time or a*  
> *concept of time, but rather only on sequence. We define what*  
> *comes earlier in sequence as the cause of what comes later in*  
> *sequence."*  
>

>  
>>  
>>  
>>> *My assertion was and remains: "Cause and effect have no inherent  
>>>dependence on time or a concept of time, but rather only on  
>>>sequence. We define what comes earlier in sequence as the cause  
>>>of what comes later in sequence."*

>>  
>> *And what does that sequence consist of?*

>  
> *For Pete's sake. What could it possibly consist of in the  
> context of my statement other than the sequence of causes and  
> effects?*

It's a sequence of events that occur in time.

>  
>> *Is there no measure of the time  
>> between moments, other than to say one is after the other?*

>  
> *You can count clock ticks. But that is not a measure of time.*

Yes it is. What do you think a clock does?

>  
>> *It seems  
>> that, since we can measure time consistently to a very high degree of  
>> accuracy physically, it is very real and physical.*

>  
> *No, you are not measuring time. You are simply doing arithmetic  
> with clock ticks.*

Right and when I take a ruler I am not measuring space, I am simply  
doing arithmetic with marks on a stick. Is that right?

Clocks are numeric – what do those numbers represent? What do the marks  
on the stick represent?

>  
> *What does one gain by  
>> removing time from the picture of casuality?*

>  
> *What did I say earlier? Why have you forgotten it so quickly?  
> Why do I have to keep pasting the same statement over and over:*

>  
> *"if time is an illusion and all that exists is sequences of cause  
> and effect, then we can have backward causality without fear of  
> time paradoxes, and without the silliness of a photon being a  
> probability wave that 'collapses' into a particle."*

I don't see the advantage. We don't have backwards causality. Time  
paradoxes certainly go away if time does, but so what? And I think you  
are disturbed by the dualistic nature of objects in the universe, but  
that it is a universal truth that you should try to come to grips with.

>  
>>  
>>>> *What makes you  
>>>>think I am slavishly accepting authority. Is that what I've been doing  
>>>>with Cantor? You might want to consider the possibility that I believe*

> >>> *in time and the interchangeability of waves and particles because they*  
> >>> *make sense to me, not because "they say".*  
> >>  
> >> *It cannot be just because 'they make sense to you'. The QM*  
> >> *definition of photons is counter-intuitive and, in that you have*  
> >> *not personally performed the necessary experiments, you must be*  
> >> *believing the assertions of those who have. i.e. You believe*  
> >> *scientific dogma on faith.*  
> >  
> >  
> > *I take it as a matter of faith that there is not a big conspiracy*  
> > *between particle physicists, and that their experiments do have*  
> > *consistent results when performed by different competing physicists in*  
> > *different locations at different times. If I find out there is such a*  
> > *conspiracy and that the results are all made up, then I will question*  
> > *the results fundamentally. Until that happens, all I can conclude is*  
> > *that there is something real they have detected and are trying to*  
> > *formulate.*  
>  
> *Tony, I compose my posts very carefully so as to discourage the*  
> *kind of distortions that you introduce by your poor parsing*  
> *skills. I never claimed that a conspiracy exists.*

You said I am taking it on faith that these experimenters got the results they reported, because I have not personally performed the experiments. The only explanation I can think of for why experimenters around the world would report consistent results for a particular experiment that they didn't actually get is some kind of collusion or conspiracy between them. Otherwise it's just an astronomically remote coincidence. Can you offer another explanation for why they would all provide consistent results that they never got? If you think for a minute you will see I was responding to what you were saying with the only possible thing I could imagine you were suggesting.

> >  
> > *You know, maybe it makes sense to me because my intuition is a little*  
> > *off, or maybe, on.*  
> >  
> > *Besides, why cannot I believe what makes sense to me? You believe things*  
> > *you admit aren't logical, and you're allowed, as a human being, to have*  
> > *your own sense of intuition and universal aesthetic.*  
>  
> *I don't know what you think I believe that I 'admit is*  
> *illogical', but indeed you are entitled to your own sense of*  
> *intuition and aesthetic.*

For instance, free will without some indentifiable influence besides genetics and environment, a God that creates a universe that is logical but then violates that logic by knowing everything and yet allowing things to be different that what is known. Things like that.

>  
> *BTW, your experiment with attribution (he said:, I said:) really*  
> *screwed up this post. It is now unquotable in that all*

> *indication of level is lost.*

Sorry Albert, but you accused me of putting words in your mouth. It seemed necessary to point out EXACTLY what we said to each other, so that you could see how you DID say what I said you said. When you fit the statements together they don't sound right do they? That's all I did.

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>

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Smiles,  
Tony