

# Re: Stray Thoughts & Provocative Questions

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- *From:* "T Wake" <[taswakeAtxxxxxxxxxxx](mailto:taswakeAtxxxxxxxxxxx)>
  - *Date:* Thu, 14 Jul 2005 21:16:53 +0100
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"Mr. Knowitall" <[ir911@xxxxxxxxxxxxx](mailto:ir911@xxxxxxxxxxxxx)> wrote in message  
[news:qgyBe.11742\\$gq1.933804@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:qgyBe.11742$gq1.933804@xxxxxxxxxxxxxxxxxxxxxxxxxxxxx)

>  
> I see nothing there that is any more rude or offensive than the kind of  
> language I see spiced throughout most of the posts I see here...including  
> both your own and Uncle Al's. It's a little difficult to decide whether or  
> not I "like" someone's post without reading it first.  
>

Fair point and I will not debate the semantics of it. However, I have gone out of my to not be rude to you. If you feel otherwise, again fair enough.

My suggestion was meant to be that if you read a post from someone who offends or annoys you simply close the message and no longer read messages from that person. However, it really is up to you.

>  
> I said that "lower" life forms (mammals, birds, insects, plants) \*seem\* to  
> be aware of the \*passage\* of time...not that they have some abstract  
> concept  
> of time itself. I have no \*proof\* of this...but then no one has proof to  
> the  
> contrary either.  
>

Very true. This is the point I was making. You stated about lower life forms to explain the lack of a need for a measurement of time. The problem with this, is it is logic built on quicksand. Yes, if it turns out "lower life forms" don't need but still understand time you are correct. However the postulate based on an unknown is not a proof.

By the way, humans are mammals.

>  
> My definition is admittedly a pretty general one...but I believe clear  
> enough to be understood by most people. What's your definition of time in  
> a  
> nutshell?

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I don't know. I don't think it can be defined in a nutshell. Time, according to relativity is a dimension the same as length, height and width. Is that in a nutshell? Surely time can still pass without anything else, except the time, changing? If the fact the time is changing is used as evidence time is change, then all the dimensions are change surely?

> I'd be pleased to read \*your thoughts\* on the matter. I think we're both  
> easily beyond this kind of thing.

Easy to assume. It is important to establish a baseline and common understanding before progressing. My "is it" was not meant as a disagreement, simply a request for further clarification.

Sadly, at the moment I have no real thoughts on this matter. I have never attempted to mentally define "change" before. Observable phenomena for instance. Do you mean actually observable or theoretically observable?

> At least you're not being wishy-washy about it. I'm not saying it's  
> \*wrong\*  
> mind you, but I'd appreciate a little more elaboration in support of your  
> answer.

Well, difficult to explain in "nutshell" terms and I don't wish to go into long winded diatribes about it on the internet.

Simplistically speaking, our concept of "now" is the state of the universe "now." By definition this is valid across the universe. The restraints of the speed of light make it difficult to experimentally verify this other than the logic exercise. When you look into the night sky, you see the universe as it is "now." The fact that this "now" is  $1.5 \times 10^{10}$  million years after the big bang on Earth and 1 year after the big bang at the edge of the light cone isn't important. It is still all "now."

> Obviously not. How could it be? If we suddenly received a clear message  
> from  
> some inhabitant of the Andromeda galaxy, absurdly asking for a time-check,  
> what useful response could we possibly give...since the query was made  
> some  
> 2 million years ago in both of our pasts and the answer won't be received  
> until 2 million years in both of our futures?  
>

I totally agree with this. It doesn't change the "now" for both of you though.

> Distance matters only in our perception. At that close range, the  
> difference  
> is imperceptible...but there \*is a measurable difference\* nonetheless. I  
> tend to

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- > believe that distance and time are closely related functions of the same
- > phenomenon...to the degree that they are actually equivalent when the
- > apparent magnitude of both values become large enough. At the very least,
- > you can't have the presence of either one without the presence of the
- > other.
- > I could of course be wrong. That's why I enjoy exploring this kind of
- > stuff.
- > Teach me something...\*nicely\* thank you.

I will try. If the theory implies that the "now" for two observers at different ends of the universe is different then it should also follow that the "now" for two observers 1m apart is different, but by a much smaller magnitude.

We live in a (minimum) four dimensional universe, there is no distance without time and no time without distance at any scale.

If you are using the Planck time as the definition of "now" than each of your atoms are feeling different "now" times. When we, as humans, talk about magnitudes of distances we are hampered by the scale we see as most intuitive. What is a short distance to us, is incredibly massive to an electron.

- > Well yes...since "visible" light is part of the much larger spectrum of EM
- > radiation. To my knowledge, there are only 2 methods presently available
- > to
- > us for establishing the existence of distant physical objects or energy
- > sources. We can aggressively "scan" our surroundings with a beam of energy
- > that will return an echo of that energy (as in radar) or we can design
- > instruments that passively "detect" the presence of EM energy that is
- > emanating
- > from some source (as in optical, radio or x-ray telescopes). At
- > relativistic
- > distances, I believe the passive type of instrument is more practical and
- > therefore more common since there is no "roundtrip" to wait for.
- >

Yes and require a lot less power output. Relativity applies at lots of distances though. Some radar arrays are set up to work over huge distances but generally speaking, it would be unfeasible both in terms of power output and round trip time to actively image objects more distant than (for example) the moon.

- > Well yes. At this point I'm just suggesting a possible similarity in a
- > very
- > superficial way...like magnetic polarity is related to electrical charge
- > polarity. I'll be the first to admit that I haven't got a clue about the
- > advanced math involved. That doesn't make me "stooooopid".

No, and I would never call anyone stupid, let alone the puerile spelling some posters here resort to.

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There is possibly a similarity, however there are some differences. With large scale structures we can be relatively (pun?) accurate in both their speed and location – this is against the quantum uncertainty principle.

One follow on argument, though, is that as with all objects we are only accurate to a certain level. For example your monitor may be described as 1m from your head right now – however what is this measured from? If you measure from atoms the number may become 1.000000000000000000000000034m depending on how accurate we can measure. There is always the uncertainty after the last digit.

> Ahh...do I detect a playful sense of humour there? That's always a good  
> sign. Life is so much better with it than without it.  
>

Yes, but it is rare here. Most people are fed up with the cranks posting the same drivel and requiring the same rebuttals and never learning. (Don't if you are reading this I am talking to you here).

> EXACTLY! In subjective human terms, "now" is next to impossible to  
> experience directly. The line I just typed immediately belongs to my past  
> and I strongly suspect that it won't be read by you until some time in a  
> potential future that will briefly become your "now". So...in a sense,  
> this  
> message is currently in a state of simultaneously existing in both my past  
> and your future. Where are we now?

Very good question. Where possible science tries to avoid the term now because it is so ambiguous.

> Extrapolate that reasoning to a cosmic scale where units of time & space  
> attain very large relativistic values. Does that necessarily change  
> anything  
> fundamentally? If so, how or in what way?

No, the logic remains independent of the scale. The now that is in the past here is in the past everywhere. Now means (to me) the situation your mind processes at that instant. So when you look into the night sky you see the "now" for every inch of the universe. The problem is communicating this now to anyone else. If you sit in a room with someone and say "now" by their time they hear and register it, it is already gone.

> Building a positive relationship with others requires a little patience  
> over  
> a period of time. I don't automatically assume that an unfamiliar newcomer  
> in my life is a crank or a nutcase...although your aforementioned example  
> appears to be a clear case of a seriously disturbed personality that I  
> have  
> encountered elsewhere. No need to elaborate.

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>

I try not to automatically assume that either, but you can see and should be able to understand why lots of people do.

> I said at the outset, in my original post, that I am a "lay" scientist.

> That

> shouldn't be construed as meaning that I am uneducated, uninformed,

> unsophisticated or unintelligent.

>

No. There are enough people like that here already.

> So far, I have only responded to those that have directly responded to my

> original post in some way. I already see plenty of people here that I want

> to steer entirely clear of...but of course they'll inevitably come to me

> whether I want them to or not.

>

Yes. Not always a bad thing as some of the people who have responded are actually very knowledgeable about this subject. No one knows everything, but there are probably people here who know enough about something to make the sum total (once you remove the insane and nasty) worthwhile.

I note with trepidation that you have not responded to my reply to your original post though. Does that imply anything?

> Look...I don't know who the hell \*he\* is...or who the hell \*you\* are for

> that matter...anymore than either of you know who the hell \*I\* am. Many a

> good friendship starts off on the wrong foot due to misunderstanding or

> misinterpretation. I hope that is so in this case...until proven

> otherwise.

> I'm not here to fight with anybody or to prove my intellectual superiority

> over all comers. I just want to engage in a reasonably civilized

> discussion

> of science in general and physics in particular. If that proves to be

> impossible, then I'll move on. Simple as that.

Fair points and a sound ethos.

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### • *References:*

- ◆ *Stray Thoughts & Provocative Questions*

◇ *From:* Mr. Knowitall

- ◆ *Re: Stray Thoughts & Provocative Questions*

◇ *From:* Uncle Al

- ◆ *Re: Stray Thoughts & Provocative Questions*

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◇ *From: T Wake*

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◇ *From: Mr. Knowitall*

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