# Re: Inflationary Theory ; I'm confused

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***From:*** TomGee (*lvlus_at_hotmail.com*)
***Date:*** 02/27/05

Date: 26 Feb 2005 17:30:46 −0800

Edmond Wollmann wrote:
*> TomGee wrote:*
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*> > > > > > Edmond Wollmann wrote:*
*> > > > > > SNIP*
*> > > > > > > > > > I am confused about this inflationary period.*
*> > > > > > > > > > I've read somewhere that the Universe expanded to*
*> > > > > > > > > > a size of 40 million light years within a miniscule >*
*> > > > > > > > > > time.*
*>*
*>*
Yes, well, that was the best idea of its time to explain the homogeniety of elements in the universe, but my model makes the IP unnecessary because if the BB occurred, when the primordial soup began to congeal into matter, the matter would have acquired the property of time, and since matter was then moving at tremendous speeds, its time rates would have been sufficiently slow enough for the elements to spread out as they are now.
*>*
*>*
snip
*>*
*> > > > > > > I am wondering then what constitutes "space" if there is*
*> > little "stuff" occupying it? I thought space/time were aspects of*
*> > the physical universe and that moving one directly "moves" the*
*> > other so to speak and that the properties of the space WAS defined*
*> > by the "stuff" in it.*
*>*
*>*
*> > > > That is the way AE explained how a rocketship on the surface of*
*> > Earth is really moving in curved space. He said that the ship*
appeared still to us but was really moving through time in his 4d parallel universe.
*> > > > I assume he meant that since time and space are interdependent,*

the way he saw it, moving through time must also mean that an object is
*> > moving through space as well.*
*>*
*>*
*> > > I agree, but these are issues of perception, not physical laws,*
*> > correct?*
*>*
*> > Correct.*
*>*
*> But my point was that the SPACE itself is a product of "material" in*
it,
*> not something separate from it that is just "empty". How is that*
*> possible, I cannot see that as feasible.*
*>*
*>*
It is more difficult to imagine that space has the capacity to produce something than to imagine that space is the medium for matter both visible and invisible. My model contends that Absolute space (defined as space devoid of anything in it) exists beyond our universe and existed where our universe now exists until the BB filled it with matter.

I am at the point where I can guess that what came just before the BB was dark matter and dark energy reaching a point of repulsing visible matter into our famous singularity, which at a certain point of compaction precipitated the BB. Obviously, space is the medium for dark and visible matter, so space had to have been around then for the BB into which to explode.
*>*
*>*
*> > > > > > My model of the U. claims that the basis of all space is*
*> > absolute*
*> > > > > space*
*> > > > > > > (i.e., space devoid of anything in it), but the space of*
our U.
*> > is*
*> > > > > > > filled today with visible and invisible matter ("real" and*
*> > "dark"*
*> > > > > > > matter/energy) so it is no longer empty space but a medium*
for
*> > > > > matter*
*> > > > > > > and energy, the extent of which defines the size of our*
*> > universe.*
*> > > > > > If there were no matter then, in that model, would there*
still be
*> > > > > > recognizable space?*
*> > > > > Yes, of course. The alternative is the "Great Void", and, like*
the
*> > > > > Great Pumpkin, it does not exist.*
*> > > But isn't "space" a dimension of the physical universe? Doesn't*
there

> > > have to be "space" between OBJECTS before one can determine there
> > even
> > > is such a notion?
> > My model does not deny that space exists, only that space did not
come
> > out of the BB, but most of what did come out is dark matter and it
> > filled and continues to fill absolute space to the extent the
expansion
> > has occurred.s edges. Absolute space, then, is what existed before
the
> > BB and still exists except for that part of it which our universe
is
> > occupying. Since it has dark and visible matter in it, it is no
longer
> > absolute space because it is no longer "devoid of anything in it".
>
> But I am speaking of the area if you will, that has NO matter in it,
> that space in my view IS the product of the matter, even though it
> contains none.
>
> > > > > It would seem to me that space and matter are closely
connected
> > to
> > > > > time
> > > > > and the experience of both and that it is difficult to
perceive
> > the
> > > > > one
> > > > > or the other with much accuracy while we inhabit it. Sort of
like
> > a
> > > > > fish
> > > > > believing that all that surrounds the fishtank (outside of it
> > that
> > > > > is)
> > > > > is inherently "waterlike".
>
> > > > Yes, space, matter, and time are closely connected, but it is
not
> > that
> > > > difficult to distinguish the individual components, like we
> > distinguish
> > > > the leaves on a plant. Time is a property of visible matter,
thus
> > we
> > > > must have matter for time to exist.
>
> Then in my world we must have space as well.
>
> >> Matter exists in space, and so
> > we

> > > *Then isn't space a property of matter as well? And that we must* have
> > > *matter to have space?*
>
> > *No, because a property of something cannot be a property of that* which
> > *it is a property. Remember that absolute space was here before* matter
> > *existed and so we can have space without matter. The reverse is* not
> > *true, however.*
>
> *This is your belief, not a "fact."*
>
>

Yes, I am convinved that AE got it wrong when he forced interdependence onto space and time. I have shown that there is no such interdependence by using SR's construction of the Twin Paradox to show that time is a property of visible matter and not of space nor the dark matter in it. As such, I have used AE's own arguments against him. If time accrues at varying rates dependent on the states of motion of objects, as inferred by SR's TP, then time is dependent on speed and not on space. Since the universe is defined by my model as that extent which has covered absolute space since the BB, it can be said that the existence of all things is dependent on the existence of space, of course, but not that space is dependent on time. In my model, absolute space is the basis for the existence of our universe.

>
>

> *"Before" is also a misnomer, because*
> *if there was no matter and no time as the effect of that matter−−* then
> *there was no "before and after", and then, by derivation, there could* be
> *no "space" either.*
>
>

Yes, that is the propaganda the same as I was taught, but if there was a BB, there has to have been a "before", even though we cannot know what it was. From your argument above, however, you cannot claim that your conclusion is valid since even if there was no time and no matter before the BB, there could still have been empty space. I contend, remember, that before the BB, there was only empty space devoid of any dark or visible matter, into which the BB poured out dark and visible matter with it attendant energy. If there was no space before the BB, you must believe in the "Great Void Theory", which is an unimaginable concept to humans at this stage of our evolution, or come up with something better.

>
>

> > *I disagree that space itself is expanding, like a rubber ballon*

expands
*> > as we blow it up. What is expanding is that which is in it, and*
that
*> > is, dark matter.*
*>*
*> Ok, but what about the area that contains no matter?*
*>*
*>*
An area of space within our universe must have have either dark or
visible matter since there exists no Absolute space we can find.
*>*
*>*
*> > > > must have space as a medium for matter. Obviously, then, we*
first
*> > must*
*> > > > have space.*
*>*
*>*
*> > > In my world, if there's no matter, there cannot be the construct*
of
*> > > space. Perhaps I am wrong in this?*
*>*
*>*
*> > I hope I have convinced you otherwise with the above.*
*>*
*> Not yet, no.*
*>*
*> > > "Space has no objective reality except as an order or arrangement*
of
*> > the*
*> > > objects we perceive in it, and time has no independent existence*
*> > apart*
*> > > from the order of events by which we measure it." The Universe*
and
*> > Dr.*
*> > > Einstein*
*>*
*>*
See how I show above that AE contradicts the findings of the Twin
Paradox in Special Relativity, proving that time does indeed have an
independent existence from the order of events measured by us. Time
rates evidently exist in a wide range of ratios just like light waves
exist in a wide range of wave lengths. Thus, like the tree which falls
in the forest and makes noise even though no ears are around to hear
it, time passes at different rates according to the speed of specific
objects and systems whether or not anyone is around to measure it.
*>*
*>*
*> > Thanks for the quote, but I disagree that space has no objective*
*> > reality except as [a medium for] the objects we perceive (??) in*
it. I

> > *am sure that if AE had known about dark matter, he would not have*
made
> > *that claim. We know now that space does indeed have an objective*
> > *reality in that it is comprised of dark matter.*
>
> *Dark matter or no, there still IS space.*
>
>
Yes, of course. I did not say there was none so I do not get the import
of your statement.
>
>
> > *AE once said that motion was meaningful only between two objects.*
He
>
> *Yes, because there is no "edge" or up and down to the universe.*
>
>
No, he said that meaning that we cannot find a point in the universe
from where to measure tell motion, so all motion is relative to the
motion of some other object.
>
>
> > *also said that time and space are both flexible and dependent upon*
the
> > *state of motion of an observer. If you study both statements, you*
will
>
> *Yes, because there is no "law" of the universe that can be found to*
be
> *applicable ALL THE TIME except, perhaps the speed of light, and even*
> *that is possibly incorrect.*
>
>
Um, yes, but a law can only remain a law until one instance is found to
contradict it. We are not discussing laws above, only AE's beliefs and
the way he applied them to his work.
>
>
> > *soon realize that one seems to be a contradiction to the other*
because
> > *if the latter is true, the former must be false. Time and space*
are
> > *not objects, but if they are dependent upon the motion of*
observers,
> > *that shows motion is meaningful between more than just two objects.*
>
> *I do not see it that way at all, I see it the way I explained it*
above.
>
>

Well, it cannot be otherwise than as I say, in the English language. There are no semantics involved here; either motion is meaningful to only one thing or it is meaningful to more than one thing. The truth of my argument does not depend on your or my opinions as to how we see things, but only as to whether or not the claim fits the facts.

> *"According to general relativity, the concept of space detached from* any
> *physical content does not exist. The physical reality of space is*
> *represented by a field whose components are continuous functions of* four
> *independent variables−the coordinates of space and time. It is just* this
> *particular kind of dependence that expresses the spatial character of*
> *physical reality.*
> *Since the theory of general relativity implies the representation of*
> *physical reality by a continuous field, the concept of particles or*
> *material points cannot play a fundamental part, nor can the concept* of
> *motion."*

What the above means is that the physical content of space exists dependent upon and only in the s−t continuum, which we know is an Alice−in−Wonderland math construct and does not exist in reality. I cannot make sense of the latter statement since it does not explain how the representation of reality by a continuous field prevents particles, points, and motion from playing "fundamental parts". Care to try to explain what the author meant, and how wrong he was about that now that we know differently about what comprises space?

> *"Just as Maxwell and Faraday assumed that a magnet creates certain*
> *properties in surrounding space, so Einstein concluded that stars,*
> *moons, and other celestial objects individually determine the* properties
> *of the space around them.*

Hey! That was not Albert who thought of that first − it was Newton!

> *And just as the movement of a piece of iron in*
> *a magnetic field is guided by the structure of the field, so is the* path
> *of any body in a gravitational field determined by the geometry of* that
> *field." Lincoln Barnett in "The Universe and Dr. Einstein"*
> *Edmond H. Wollmann P.M.A.F.A.*

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>
>

That sounds really stupid to me, sorry. A piece of iron in a magnetic field is "guided" by the _force_ and not the "structure" (whatever that means) of the field. And the force only works against it because it is an iron piece and not a plastic piece. So, what makes the curved space which is supposedly created by massive objects force other nearby objects to follow its curves? Mr. Lincoln Barnett makes the weakest of arguments here in his iron piece and magnetic field analogy.

TomGee 02/26/05