

A theory on the dimensional boundaries of the universe.

All following theories, although inspired and pushed by the comments of others, were created by myself, Jeremy Michael Poulos, of Lowell MA, in order to define the dimensional properties of the universe.

I hyperlink to the entire thread the I used to create my idea is as follows:

[http://www.reddit.com/r/philosophy/comments/1g19p7/an\\_idea\\_i\\_had\\_on\\_time\\_the\\_universe\\_and\\_our/](http://www.reddit.com/r/philosophy/comments/1g19p7/an_idea_i_had_on_time_the_universe_and_our/)

By: Jeremy Poulos.

These are some ypotheses I wanted to throw out to the general public to hear what people think! Here it goes!

On time, the universe, and life after death. (This one is more philosophical than a measurable scientific idea!)

Consider this. The past, present, and future, are the current position and state of matter and energy within our universe during a certain point within the confines of time. If time exists within our universe, and the universe will not exist to an infinite future, then the past, present, and future will be destroyed if the universe no longer exists.

With that said, would it be too much to assume that based on the fact that we are currently experiencing the present, that either: A: Time exists outside of the realm of our \*3 *dimensional* universe as the next dimension, and therefor, the universe exists within the dimension of time. (Meaning the end of the universe within the realm of time does not mean the end of time itself) Or-

B: Time exists within our **3 dimensional** universe **possibly as an illusion of our minds**, but the universe is infinite (as is time), and the past, present, and future, will continue to exist forever.

Consider that the death of the realm of time means the death of the present. We are experiencing the present. It exists, therefor time itself can not be destroyed.

**Edited to bring separate ideas into the comments, and for thought organization. Edited with bold to better explain my thoughts.**

**Edit:** The best definition of a "dimension" i could come up with, from below comments!

A dimension, I believe is not necessarily a spacial measurement, but a mathematical concept that states that any time the complexity of the universe is multiplied by +- infinity, a "dimension" is defined. A measurable positive and negative direction of increase.

Think about it this way.

Dimension 1: +- infinity, linear. The change in a points position over a "line". 2: +- infinity, times +- infinity. Area. The change in a line's dimensions over another "line". 3: +- infinity, times +- infinity, times +- infinity. Volume. The change in an area's dimensions over another "line".

The next "dimension" would logically follow the same rule, would it not? If time is dimension 4, it would be the change in a volume's dimension over another line with a length of +- infinity! So infinity, or dimension 4, is linear.

Would dimension five not be another increase to time? It would be it's existing changes in TIME itself over another line. So as time itself would change (The state over matter over a "moment"), the number of states the matter could exist in would then follow the same rule, of becoming infinitely more complex, once. And so on. It becomes so inconceivably complex beyond this point that I can't imagine it, but Time, would appear, the be a line. The existence of infinite points from - infinite years ago, to + infinity in the future.

**Edit: A logical process from my below comments!**

Why time is the fourth dimension: A point, or D0, can not exist in any spacial location if that location itself is not inside of a dimension, without the existance of D1, or a line. Now we know exactly where it falls on a line, and we see our first occurance of a rule for dimensions. That must exist in a way that they're defined by the next dimension. For D1 to exist, it needs to be defined by D2. Why? Simply put, a line itself, while it has no Y dimension, can not be placed within reality, as it has no... let's call it a drawing board, to be "created" on. A pattern of a necessary increase in complexity emerges. D2, defines the next axis, that creates area. But where, in our universe, does this newly created area exist? D3! It exists somewhere within a volume. For example, you can not measure the area of a cube, if the cube has no Z properties, as it would be infinitely thin, and therefor, it would not exist! The pattern continues! Now D3, is defining the volume of an object. So far, this pattern is making the constraints of the complexity of the universe we're defining infinitely more complex each time.  $+\infty$  (D1).  $+\infty^2$  (D2) and so on!

But we're establishing an easily identifiable pattern here. For D0 to exist, it has to be defined by D1. D1 is defined by D2. D2 is defined in it's coordinates on the next axis, D3.

Now the big question, what is D3? Where is our spacial universe located, right now? Right now, it is located at a moment in time. A moment itself however doesn't really exist, as a coordinate, while it can approach infinity, it never becomes infinitely small (and thus has to be defined by it's position on the axis of time). So let's call right now, 6:55 AM on monday morning for the sake of sticking to the reality. What does this time we have just named do? It places a spot in which the physical volume of the universe exists at. This, I hypothesize, is D4.

Now, furthermore, as we get into higher values of D, the concept gets exponentially more complex, as the limits of the dimensions of our created universe are getting multiplied by a factor of infinity, each time.  $+\infty^x$ , where x is the dimension in question, and the equation defines the complexity of how many "points" exist within the confines of this said dimension!

So yes, I feel that there are quite possibly an infinite number of dimensions that define the "universe" based on this emerging pattern, but there's no way the human mind can understand these infinitely more complex dimensions.

Let's do a little bit of math work.

You're given a pattern, and told that there is no other information available to the entire human race at this current time to identify this pattern!

The pattern is as follows:

1 2 3 4 5 6 X.

Based on this available information, what is the most logical value for x? 7.

Now, in our known universe, there also exists a pattern.

A point, has a value of  $\infty^0$ . It has an area of one POINT. It is one point. The dimension of it, it one point.

A line, is an infinite number of points on an X or Y Axis.  $\infty^1$ .

An area, is an infinite number of points on an X AND Y axis.  $\infty^2$ . While the number of points do not increase, the limitations on the locations at which these points can exist increases exponentially. As a point has no identifiable area, in any dimension from a point itself, to a cube, there will always be room for infinite points.

Now, the complexity constraints of where the points may exist will increase one more time when

we move to the third dimension. Infinity <sup>3</sup>. Volume! Still, infinite available points, but now, an infinitely larger area to place them.

But hey, you can have all the gold cubes in the world, but you can not spend them if time never happened! Why do you think time appears LINEAR to us, when we live in the third dimension? That's because the fourth dimension is also a line. It is a set of points in time, in which, any volumized object can exist.

Now, there's another pattern that emerges. For a point to exist, it needs to exist on a line. Why? Because you can not define its location otherwise, and without defining a location, it can not be observed.

That which can not be observed within Dimension 2, that exists in dimension 1, doesn't exist, as it's not "part" of the dimension.

So, for a point to exist, it needs a location on a line.

For a line to exist, you have to locate it on a plane.

What is a plane with a thickness of zero? Nothing. It needs a Z value, a thickness, or it is literally, nothing.

Now, what logically defines the NEXT LINEAR dimension by which we regularly define the location of matter within our universe? (Note that each advancement in dimensions previously only increased the complexity by a line, or +-infinity, multiplied into the number of existing points.) Everyone experiences a linear travel in this world, by which our physical bodies and all matter moves. It moves through TIME. Therefor, i theorize, that dimension four, is, in fact, time.

Here's an excerpt from me explaining my theory on facebook, to my cousin.

### Myself:

it's simple. Every time you advance up one dimension

you add one LINEAR possibility to the location of where you can place points.

even though within any dimension from 0-infinity, a point, which has no area, can be placed infinitely

the possiblity of places the point can exist exponentially increases at a value of  $\infty^x$  where x is the dimension in question

and a pattern emerges.

every advancing dimension

adds a line, a new line, on which the previous dimension can move

therefor, logically, following the only identifiable pattern available to be viewed within the ability of the human race

one can assume we can do no better than do assume the fourth dimension is linear

and logically, the next step up from a volumized location

is the spot in time in which any three dimensional object exists

however, each time we add a dimension, it needs to be defined by a new dimension to exist anywhere

follow the pattern... a point can only exist if defined on a line.... why? Because it needs a location within a two dimensional world to be observed. That which can not be observed by

something that exists in a higher dimension

does not exist.

a line can be drawn on a two dimensional plane! But it can not be drawn on a point, and it can not exist if not placed on a plane

but a plane has no thickness, so it is invisible, and does not have a location in the universe, therefor it exists within a cube, or the volume

but volume doesnt matter if it never existed!

it exists within the confines of time, or else, it never ever took place.

that is the next logical dimension, and as it appears to be perfectly linear in how it affects D3, which follows the pattern i previously identified

**Cousin:**

**This is way over my head.**

I mean, I kinda follow your logic but I also feel it relies on assumptions that I'm not sure we can make, from a metaphysical standpoint.

## Myself:

But that's untrue, the only assumption that really has to be made  
that with the lack of values beyond abcd  
and the inability to measure value E  
the closest we can come to calculated E, is to assume it is in face part of a series, or a pattern  
and is E.  
why? Because we can not move through time  
so we can not measure it.  
we are being pushed through it, yes  
but we exist within D3, we do not control our movement through D4, which would explain why it appears to abstract to us. The human mind is the manesfestation of physical matter,  
which is immediatly subject to a location on what axis?  
what is the next line to define volume?  
time.

**Comment [1]:** <!--EndFragment-->