

Forum:[Hack Forums](#)

Thread: [When someone says "Time is relative", what do they mean?](#)

SIM-4973360 - March 19, 2021, 11:00 am

Time feels like one of the only constants in life — it passes day after day at the same pace.

Then Einstein had to go and ruin that for us. He suggested that time is an illusion and time is relative.

The classic example of this is the twin scenario. One twin blasts off in a spaceship traveling close to the speed of light, and one twin stays behind on Earth. When the space-traveling twin returns to Earth, she's only aged a couple years, but she's shocked to find that her Earth-bound sister has aged over a decade.

Of course no one has performed that experiment in real life, but there's evidence that it's real. When scientists launched an atomic clock into orbit and back — while keeping an identical clock here on Earth — it returned running ever so slightly behind the Earth-bound clock.

So what do u guys think, Is time real or an illusion?

What do you think about deja vu?

If we are living in the present, does that mean that the past and the future doesn't exist?

???????????? - March 19, 2021, 11:07 am

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If we are living in the present, does that mean that the past and the future doesn't exist?

There are many theories that kinda fascinate me?

I think the best or easiest explanation for "time is relative" is if you hate something time flies by way slower, if you love something/ spend time w/ a loves one time flies by way faster. Atleast you feel like it right? The more interesting shit is the 4th dimension and everything beyond who just could travel to whatever date they want, interesting and still kind of fucked up because i can't imagine what they could do what we can't even dream of if this makes sense.

duckinghell - March 19, 2021, 11:10 am

I had this same conversation with my friend yesterday.
ill just add to the twist.

example 1

notice when you try to kill a fly they generally see your move a little faster than you can react they always move away. if a human was to go to fly size would time stay the same or would it alter for him? when the fly size human looks at a human would the human move slow or the same speed to what the human is used to?

example 2

If there was no day/night and seasons and so forth would we still think of time as we do now? would a day be 24 hours? or would it be longer?

i couldn't answer either question, can anyone help out? :p

SIM-4973360 - March 19, 2021, 11:18 am

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Houseflies can see a light flickering at a rate nearly seven times faster than we can. "That's because they are getting much more information per second through their visual system... so that second feels longer," one of the researchers, Dr Luke McNally, of Edinburgh University, said. "These animals are perceiving the world in a very, very different way."

So i think your first example is interesting but at the same time why ants doesn't react faster if they are smaller than us?

duckinghell - March 19, 2021, 11:20 am

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Very good point with the ants, its these kind of things that make time a very weird concept to understand.

btw thanks for the rep :)

SIM-4973360 - March 19, 2021, 11:25 am

(Mar 19, 2021 11:20 AM)duckinghell Wrote: [\[CITE\]](#) Very good point with the ants, its these kind of

things that make time a very weird concept to understand.

Anyway about your second example i mean different planets have different concept of a day (24 hours cycle for earth). A day on venus equals 116d 18h 0m of earth time. But, I mean aging is slower in the space which means time moves slower as the gravity increases. I find that fascinating and one of the most mind blowing topics to talk about.

duckinghell - March 19, 2021, 11:30 am

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Yes i find that very fascinating too. If a humans average life is 80 earth years, would the human live past this if he was to move to Venus.(lets just say humans can survive there for the sake of argument) 1 = 116 days so 80 years would be 9280 venus years. What happens then? :s

Im pickling my head thinking about this subject :D btw sorry for my bad English it isnt my first language.

SIM-4973360 - March 19, 2021, 11:38 am

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I mean, 80 earth years is 80 earth years in every planet which means we live 292 days according to the venus time. That's our basic information.

But i mean the opposite of our basic information is the Interstellar movie theory:

<https://www.youtube.com/watch?v=zSWdZVtXT7E>

Not sure if u heard about that movie. After i finished watching it when I was a kid, I couldn't stop thinking about the time and if time is relative and everything is just an illusion.

Juoku - March 19, 2021, 1:23 pm

It's a fact that time continues no matter what, that being said, if someone travels at the speed of light or at a speed close to the speed of light I still think they'll age the same way as someone standing still, it might look different on the cells because it might impact each differently but that's about it.

Xerotic - March 19, 2021, 1:55 pm

(Mar 19, 2021 01:23 PM)Juoku Wrote: [\[CITE\]](#) It's a fact that time continues no matter what, that being said, if someone travels at the speed of light or at a speed close to the speed of light I still think they'll age the same way as someone standing still, it might look different on the cells because it might impact each differently but that's about it.

The person traveling at relativistic speeds (near light speed) will experience life normally. They won't feel slowed down, but relative to someone on Earth, they will appear slowed down.

Consider a photon (light) traveling at the speed of light, c. It experiences no time or distance from the moment it is emitted to the moment it is absorbed. From the perspective of the photon, it's existence is an instantaneous moment. It doesn't matter if the photon traveled 1 meter or 1 billion kilometers. It experienced no time or distance. It's existence is a single point in reality.

duckinghell - March 19, 2021, 1:59 pm

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i Have not watched the movie but i will do tonight, your like the 15th person to reference this movie on the subject of time. i think its "time" for me to watch it :)) ill add to the thread once i have watched the movie so were both on the same page. :)

hyperionthegod - March 19, 2021, 2:05 pm

(Mar 19, 2021 11:20 AM)duckinghell Wrote: [\[CITE\]](#) Very good point with the ants, its these kind of things that make time a very weird concept to understand.

btw thanks for the rep :)

yeah I was thinking the same thing. They just "live faster". Same with turtles, they move slower but they live longer than humans. But I guess they don't notice that they are so slow.

duckinghell - March 19, 2021, 2:07 pm

(Mar 19, 2021 02:05 PM)hyperionthegod Wrote: [\[CITE\]](#) yeah I was thinking the same thing. They just "live faster". Same with turtles, they move slower but they live longer than humans. But I guess they don't notice that they are so slow.

yep so lets add to that, if the turtle was magically turned into a human would it still be slow? or would it be surprised at how fast it was moving?

Or

if the turtle was turned into a bacteria, would it realise that it is much slower than it was before?

wow my head is ?

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I don't think it has to do with size tho because toddlers age & grow rapidly. It just has to do with the species I think.

I think there will be a day we can reverse the aging process to some degree. Just like jellyfish do, some jellyfish species can live up to thousands of years

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It would be an interesting experiment if it'll ever be possible one day, to actually take twins and send one at the speed of light for a year or so and seeing how it impacted them

Stork - March 19, 2021, 2:20 pm

Time is a direction, the faster you move forward (speed) the faster time will go relative to the space around you. Time isn't a constant thing. The only constant thing in the universe is change. I think that it's cool that we still don't know what gravity is.

SIM-4973360 - March 19, 2021, 2:21 pm

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"The classic example of this is the twin scenario. One twin blasts off in a spaceship traveling close to the speed of light, and one twin stays behind on Earth. When the space-traveling twin returns to Earth, she's only aged a couple years, but she's shocked to find that her Earth-bound sister has aged over a decade.

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I mentioned that on the thread. U can search online about it.

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They would have to be "near" light speed because our current understanding of the universe says that no object with mass can travel at light speed. Or at least it says that it would require infinite energy and have infinite mass if a mass-having object travels at light speed.

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I think to travel near or at light speed we have to figure out what gravity is and how to control it. Then we're gods.

Juoku - March 19, 2021, 3:08 pm

(Mar 19, 2021 02:21 PM)Expensive Wrote: [\[CITE\]](#) "The classic example of this is the twin scenario. One twin blasts off in a spaceship traveling close to the speed of light, and one twin stays behind on Earth. When the space-traveling twin returns to Earth, she's only aged a couple years, but she's shocked to find that her Earth-bound sister has aged over a decade.

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Yeah, I saw but I'm saying if it would've been possible to actually test it out, what you stated is just a theory, there's no real way of knowing until it's actually tested, I would definitely want to watch the outcome of something like that.

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You can send information at the speed of light via quantum entanglement. Beyond that I'm not sure what else.