Is time travel possible?

Time is perhaps the greatest mystery of all and is deeply wrapped up in our conscious experience of things. Since antiquity, time has naturally attracted the interest of philosophers and scientists determined to understand and explain its true nature. At the heart of the question is whether time is an [actual reality](http://www.astronomytrek.com/7-profound-questions-about-time/) of the physical world or simply an [artificial construct](http://www.astronomytrek.com/times-arrow-and-growing-old-is-just-a-state-of-mind/) of the human mind.

Time travel — moving between different points in time — has been a popular topic for science fiction for decades. Franchises ranging from "Doctor Who" to "Star Trek" to "Back to the Future" have seen humans get in a vehicle of some sort and arrive in the past or future, ready to take on new adventures. Each come with their own time travel theories.

The reality, however, is more muddled. Not all scientists believe that [time travel is possible](https://www.space.com/40716-time-travel-science-fiction-reality.html). Some even say that an attempt would be fatal to any human who chooses to undertake it.

While most people think of time as a constant, physicist [Albert Einstein](https://www.space.com/15524-albert-einstein.html) showed that time is an illusion; it is relative — it can vary for different observers depending on your speed through space. This theory says that time and space are linked together. According to the theory, the **faster** you travel, the **slower** you experience time. Time passes faster for your face than for your feet (assuming you're standing up). Einstein's theory of relativity dictates that the closer you are to the centre of the Earth, the slower time goes – and [this has been measured](http://www.sciencemag.org/content/329/5999/1630.abstract). At the top of Mount Everest, a year would be about 15 microseconds shorter than at sea level.

Also, under Einstein's [theory of general relativity](https://www.space.com/17661-theory-general-relativity.html), gravity can bend time.

It is generally understood that traveling forward or back in time would require a device — a time machine — to take you there.

NASA's space telescopes also give us a way to look back in time. Telescopes help us see stars and [galaxies that are very far away](https://spaceplace.nasa.gov/galaxies-age).

We all travel in time! We travel one year in time between birthdays, for example. However, when we think of the phrase "time travel," we are usually thinking of traveling faster than 1 second per second. That kind of time travel sounds like something you'd only see in movies or science fiction books.

Simply stated, the first three dimensions are used to specify an object’s location/movement in space (forward-backwards, left-right and up-down), while the fourth dimension locates its position in time. All four dimensions are used to specify completely the location or dynamism of an object in space. Collectively the four dimensions are inseparably interlinked and known as space-time. Being three-dimensional creatures (possessing length, width, and height), humans are unable to see the fourth dimension.

As far as we know, travelling back in time is impossible. Even sending information back in time is difficult to imagine, because it can change things that have already happened, which should be impossible. If we could travel back in time and change something that happened before, we would then change the order of that line. This would mean breaking a rule called “[causality](https://science.howstuffworks.com/science-vs-myth/everyday-myths/time-travel6.htm)”.

Causality is one of the unbreakable rules of the universe saying that a “cause” (your actions, for instance) happens before an “effect” (the result of your actions).

Imagine you could hop into a time machine, press a button, and journey back to 2019, before the new coronavirus [made the leap](https://www.businessinsider.com/coronavirus-natural-jump-from-bats-more-likely-than-lab-leak-2020-4) from animals to humans.

What if you could find and isolate patient zero? Theoretically, the pandemic wouldn't happen, right?

Not quite, because then future-you wouldn't have decided to time travel in the first place.

For decades, physicists have been studying and debating versions of this paradox: If we could travel back in time and change the past, what would happen to the future?

If you go the past and meet yourself, is it possible for one soul to live in two different versions at the same time? some physicists say about parallel universes(watch Another earth movie to know about parallel universe)physicists say we live in multiverses.If this concept of parallel universe is true we will be able to meet ourselves in the past. If this is’nt true may be you would be able to travel to the past and just see mere light reflections of you and other people. you might not be able to interact or do anything. It would just be like watching a movie of your own life captured in 3d or 2d. They wont be able to hear you and you wont be able to interact with them.

You can travel to the future to gain a glimpse of what will happen to you, usually, or to someone you know. You won't find yourself beaming aboard the Starship Enterprise, though, or even the space shuttle Endeavor. Neither will you find yourself in some future city trying to find or avoid a "terminator."

The classic example of traveling into the future is the [twin paradox](https://www.thoughtco.com/twin-paradox-real-time-travel-2699432). It works like this: take a pair of twins, each 20 years old. They live on Earth. One takes off on a spaceship on a five-year journey traveling at nearly the [speed of light](https://www.thoughtco.com/speed-of-light-3072257). The traveling twin ages five years while on the journey and returns to Earth at the age of 25. However, the twin who stayed behind is 95 years old! The twin on the ship experienced only five years of time passing, but returns to an Earth that is much farther into the future.

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There are many theories out there about people who may be [time travelers](https://listverse.com/2013/12/22/10-people-who-claimed-to-be-time-travelers/). There are many bizarre stories that have some people convinced that others have already mastered the art of time travel, and they are living among us. One of the most famous cases of this was in one of Charlie Chaplin’s movies, The Circus. People have claimed that you can see a passerby talking on a cell phone. This movie came out in 1928, before cell phones were invented. The movie is in black and white, and the image is a bit blurry, but it is easy to see why people believe it is indeed a cell phone.

Another recent [conspiracy theory](https://listverse.com/2017/12/29/top-10-recently-conceived-conspiracy-theories/) is that the creator of The Simpsons is a time traveler. There have been many episodes where the future has been accurately predicted. The Simpsons has successfully predicted events, such as Donald Trump becoming president and the year the Chicago Cubs would win the World Series. Predictions like this have raised suspicions from some viewers that there may be time travel in play.

In Superman (1978), Superman turns back time by flying so fast that the Earth’s rotation reverses. Of course, that’s ridiculous, so some have floated the explanation that Superman actually went back in time by traveling faster than the speed of light. How would that work? The speed of light is the [fastest](https://listverse.com/2009/08/16/15-fastest-things-in-the-universe/) anything can go, as far as we know. If something travels faster than the speed of light, the time for the object to reach its destination would come out to a negative number. Thus, theoretically, it would travel back in time.

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"Events readjust around anything that could cause a paradox, so the paradox does not happen," Germain Tobar, the study's author and a student at the University of Queensland, [told IFLScience](https://www.iflscience.com/physics/mathematics-reveals-time-travel-is-logically-possible-but-not-how-to-do-it/).

Valeria Lukyanova has made a name for herself as a “human Barbie doll” (who also has kind of [scary opinions about some things](https://www.bustle.com/articles/20333-valeria-lukyanova-the-human-barbie-has-opinions-on-things-and-theyre-a-little-scary)) — but a 2012 short documentary for Vice’s My Life Online series also posits that she believes she’s a [time traveling space alien](https://www.youtube.com/watch?v=xoKwbbnlxi0) whose purpose on Earth is to aid us in moving “from the role of the ‘human consumer’ to the role of ‘human demi-god.’”

What I can’t quite figure out is whether this whole time traveling space alien thing is, like a piece of performance art created specifically for this Vice doc, or whether it’s what she actually thinks. I don’t believe she’s referenced it in many (or maybe even any) other interviews she’s given; the [news items I’ve found](http://www.eonline.com/news/529683/human-barbie-time-traveling-alien-whisperer-here-s-everything-you-need-to-know-about-the-disturbed-doll) discussing [Lukyanova and time travel](https://www.popdust.com/human-barbie-valeria-lukyanovaim-a-time-traveling-space-guru-1889860021.html) specifically all point back to this video.

Nikola Tesla: Time Travel Experiments There are places where time and space are naturally bent. An example is the strange Lordsburg Door, located near Lordsburg, New Mexico. Periodically, as the door opens, a tree stump with a human leg embedded in it is seen near mile marker 17 out on US highway 90. There is some evidence that these fluxes in space and time can be artificially induced. This appears to have been the case with the USS Eldritch, which took part in the Philadelphia Experiment on August 15, 1943. The brilliant inventor Nicola Tesla and the theoretician Albert Einstein are both reported to have been involved in this experiment. The object was to render the ship invisible by wrapping the hull in inch-thick cable though which a high-frequency signal from an elaborate system of generators and Tesla coils was induced. The results were disastrous. When activated, the ship generated a green fog and disappeared from Philadelphia, reappearing in Norfolk Harbor 24 hours later. Many of the crew ended up embedded in the walls of the ship. Others became insane. Some were mercifully dispatched with a pistol shot to the head. Here is a written account from one of the few survivors of the 176 man crew. Tesla was a genius of such magnitude that some doubt that he was actually human. Many of Tesla’s inventions, like the “free energy receiver” and the long-range “death ray” may have been suppressed to prevent the collapse of the electrical utility, coal and oil industries or for reasons of National Security. Tesla also attempted an experiment to use the core of the Earth like a “tuning fork” to conduct “free” electricity. In the process, he melted the town generator of Colorado Springs. At exactly the same time, an unexplained explosion in Siberia of about 15 megatons leveled hundreds of square miles of pine forests. This explosion is often dismissed as a comet or meteor impact. After his death in New York City, Tesla’s files and notes on death rays and other matters were confiscated by the FBI. Some of the FBI files on Tesla were published on the Internet under the Freedom of information act, but these have since been removed. It’s easy to sensationalize this strange American immigrant. He fell in love with a white female pigeon with violet eyes. He said he saw rays of light emanating from her eyes. He insisted on exactly 17 folded linen napkins with every meal. He constructed a tower in New Jersey to communicate with aliens. However his fame rests on rock solid accomplishments: the invention of alternating current, AC motors, the first radio transmitter and receiver (two years before Marconi) and the first to harness the power of falling water to generate electricity