
ENGLISH LEARNING
FOR CURIOUS MINDS

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# Episode #175
# The Quest for Eternal Life
# 13th Jul, 2021

[00:00:00] Hello, hello hello, and welcome to English Learning for Curious Minds, by Leonardo English.

[00:00:12] The show where you can listen to fascinating stories, and learn weird and wonderful things about the world at the same time as improving your English.

[00:00:21] I'm Alastair Budge and today we are going to be talking about the **quest**[1] for **eternal**[2] life.

[00:00:28] Death has been called the one human experience that **unites**[3] all of us, as every human that has ever lived, apart from those of us who are lucky enough to be alive today, has died.

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[1] a long and difficult search

[2] lasting forever

[3] brings together

[00:00:41] And for as long as humans have lived, people have fantasised about living forever, and of cheating death.

[00:00:49] Yet nobody has managed it.

[00:00:52] But will it always remain a fantasy, or are we **on the cusp**[4] of finding the answer to **eternal** life?

[00:01:00] In this episode we will talk about the history of the quest for **immortality**[5], talk about what scientists are currently working on to solve the problems both of **prolonging**[6] life, and of **preventing**[7] death, ask ourselves the question of what being alive actually means, and try to understand some of the **implications**[8] of solving death.

[00:01:25] Let's get right into it.

[00:01:27] Stories of the search for **immortality** exist in almost every culture, and go back to **the dawn of time**[9].

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[4] at the point when something is about to happen

[5] the ability to live forever

[6] making something last longer

[7] stopping something from happening

[8] problems

[9] since the beginning of time


 

[00:01:36] Indeed, one of the earliest pieces of literature, the Epic of Gilgamesh, is all about a man's **quest** for **eternal** life.

[00:01:46] These stories tend to have a similar theme.

[00:01:49] There is normally a character with all the earthly **riches**[10] in the world, a powerful king or rich man.

[00:01:57] They have everything they could possibly want, but then an important event, often the death of a loved one, leads them to **contemplate**[11] their own **mortality**[12], and the search for a cure for death begins.

[00:02:12] Occasionally, a cure is found, an object, a flower, a drink, a stone that can supposedly **prevent**[13] death.

[00:02:21] The **protagonist**[14] takes it, but there is some terrible **side effect**[15], and the story ends in tragedy, normally the death of the **protagonist**, or certainly a lot of unhappiness.

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[10] large amount of money and possessions

[11] think about something for a long time

[12] the fact that people don't live forever

[13] stop something from happening

[14] the main character of a story

[15] an unpleasant effect of a medical treatment

[00:02:34] And literature from the past thousands of years of man's existence suggests that the **quest** for **eternal** life is **futile**[16], it's pointless, that we should **embrace**[17] death just as we **embrace** life, and that dying is a **fundamental**[18] part of living.

[00:02:52] But in an age when we are pushing the **boundaries**[19] of what was thought technologically possible, a new generation of powerful men and women have started to question this logic.

[00:03:04] Is death really **inevitable**[20], or is it just another problem to be solved?

[00:03:10] In a New York Times interview with Peter Thiel, the billionaire founder of Paypal and investor in Facebook, he was asked about why everyone in Silicon Valley is so **obsessed**[21] with **immortality**.

[00:03:24] Thiel replied 'Why is everyone else so **indifferent**[22] about their **mortality**?'

[00:03:30] To technologists like Thiel, the human body is a complex system, like computer code, that can be analysed and understood.

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[16] pointless

[17] accept

[18] basic

[19] limits

[20] certain to happen

[21] unable to stop thinking about something

[22] not interested in something


 

[00:03:39] If you can understand how a system works, you can figure out how to control it.

[00:03:45] And if you can control it, then you can prevent death.

[00:03:49] Although we are certainly a long way away from a complete understanding of how the body works, never before in human history have we understood it better.

[00:03:59] And as a consequence, we have never before been further ahead on the **quest** for **eternal** life.

[00:04:07] Before discussing the ways in which technologists are working on **eternal** life, let's take a look at some of the ways in which they are looking at **extending**[23] life, of giving us another 10, 20, 30, or even 50 years extra on this Earth.

[00:04:24] When it comes to **extending** life, to finding ways to allow people to live for longer, humanity has done a pretty good job at that over the past 100 years.

[00:04:35] Currently, **life expectancy**[24] in the developed world has been increasing at an average rate of 2.5 years every decade.

[00:04:44] Globally, current **life expectancy** is now 73.4 years.

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[23] making something last longer

[24] the length of time a human being is likely to live


 

[00:04:49] Of course, there is still a large **discrepancy**[25] between countries, with a woman in Hong Kong expected to live to 88, and a man in Lesotho lucky to see his 53rd birthday.

[00:05:02] But humans have never lived as long as we do now.

[00:05:05] Indeed, 2020 was the first time in history that there were more people on Earth aged over sixty-five than under the age of five.

[00:05:15] Now that, in the developed world at least, medical advances have allowed us to have the best possible chance of living into our 70s and 80s, scientists are focussing on age-related illnesses and diseases.

[00:05:29] From cancer to heart disease, as we all know, there are billions of dollars spent every year on finding a cure for the diseases that are responsible for ending our time on Earth.

[00:05:42] But even finding a cure for cancer and heart disease might not extend our lives as much as you might think.

[00:05:50] From the ages of 45 to 65, cancer is the biggest killer globally, but finding a cure for cancer would only add another 3.3 years to an average life.

[00:06:03] From 65 and over, heart disease is the biggest killer, but finding a cure for heart disease would only add another four.

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[25] difference

[00:06:13] So that's an extra 7 years if we solve the two biggest killers of people aged 45 and over.

[00:06:20] Obviously, this would be a fantastic **development**[26] and we should definitely still continue to try to find cures for these two diseases but when thought about in the context of really extending life, finding cures for cancer and heart disease would be adding less than 10% to the average **lifespan**[27].

[00:06:43] Let's say that we could do this, though, people would stop dying from cancer and heart disease, but would of course continue to die of other age-related diseases.

[00:06:52] Although scientists don't yet know exactly what "causes" every death, as we age our bodies are less and less able to deal with common illnesses, and one day they just "**give up**[28]".

[00:07:04] Indeed, in English the term for this is "natural causes", the idea being that there is something about human nature that means our lives just end and that's a natural thing.

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[26] progress, advancement

[27] the length for which someone exists

[28] stop trying


 

[00:07:16] Because we don't understand exactly what causes this yet, and often it is a **combination**[29] of different things all happening at the same time, it is very hard to **prevent** it.

[00:07:26] So far, despite the billions and billions of dollars that have gone into scientific research, there are only a few things that we know for sure are likely to help us live longer, healthier lives.

[00:07:39] The good news is that I'm sure you already know them, and they are pretty easy and **affordable**[30] to do.

[00:07:45] Don't smoke, take regular exercise, and eat healthily.

[00:07:48] But even doing this, one day our bodies will decide that our time is up.

[00:07:54] A recent study published in a journal called Nature Communications suggested that the maximum possible age for most people was somewhere between 120 and 150.

[00:08:07] Indeed, the oldest person who has ever lived was a French lady who lived to 122.

[00:08:13] But what if this was only the upper limit under natural circumstances?

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[29] a joining

[30] not expensive


 

[00:08:19] What if we were able to understand exactly what caused us to die, so we could either **modify**[31] our behaviour or even **modify** our bodies in advance, to **prevent** death?

[00:08:31] We are, **to a certain extent**[32], already doing this.

[00:08:35] From heart transplants to shoulder **replacements**[33], modern medicine has advanced to the stage that we can change our bodies and **extend**[34] our lives.

[00:08:45] The next step, according to so-called "**immortalists**[35]", is to stop death altogether.

[00:08:51] This could come in various different forms.

[00:08:55] We could figure out what causes ageing, and either slow it down or **reverse**[36] it, so that we were forever young, remaining at the age we wanted to be, with our bodies continuing to function as normal, and the only thing we'd need to be worried about would be being hit by a fire engine or **struck**[37] by lightning.

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[31] change something in order to make it better

[32] in a limited way

[33] the processes of putting one thing in the place of another

[34] make something last longer

[35] people who support the idea that, with the help of science, people can live forever

[36] change the result of something to its opposite

[37] hit with force

[00:09:15] Or we could transplant our mind somewhere else, moving our mind to another body.

[00:09:22] Much of philosophy and world religions already have the idea of a soul, or a mind being separate from the body.

[00:09:30] But this would go one stage further.

[00:09:33] Our brain is just a one and a half kilo **lump**[38] made of around 60% water, and our memory and capacity for reasoned thought is **merely**[39] a series of electrical **signals**[40].

[00:09:46] If we can understand how this code works, if we can understand how the mind works technically, then it could be moved outside the body, to somewhere completely different.

[00:09:58] Indeed, the **entrepreneur**[41] behind Tesla and SpaceX, Elon Musk, founded a company called Neuralink that is working on developing **implantable**[42] brain-machine **interfaces**[43]. Essentially, machines that link up directly to your brain.

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[38] a piece of a substance or material

[39] simply, just

[40] actions that carry information

[41] someone who starts a new business

[42] designed to be connected to a person's body

[43] connections between a person and a computer


 

[00:10:15] The idea is that **immortality** could be **attained**[44] by **transplanting**[45] your brain to a computer, so that you could continue to think and reason, outside your body.

[00:10:27] Although there are, as we all know, several brain-related diseases that come with **ageing**[46], it typically isn't a brain **malfunction**[47] that causes death, it's the rest of your body.

[00:10:39] This future is very far off, and it may even be impossible, but if the technology can be developed, we will be presented with a whole **load**[48] of new questions.

[00:10:50] If your body is gone, are you really alive?

[00:10:54] If you are **hooked up**[49] to a computer, and you have no real physical **presence**[50], is it really still you?

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[44] achieved

[45] moving something from one place to another

[46] becoming older

[47] failure

[48] plenty

[49] connected

[50] the state of existing or being present

[00:11:02] You might think, “of course not”, but we would never say that to someone who had a heart bypass[51], or a knee replacement[52], we wouldn't say that they were not human anymore, we wouldn't say they were not them anymore.

[00:11:16] So, where do we draw the line[53]?

[00:11:18] What does it actually mean to be human, or to be alive?

[00:11:22] If there is a copy of your brain stored[54] on a computer, that could act exactly as you would act, is that still you?

[00:11:30] And when it comes to the ethics of eternal life, there is a very valid point that it might lead to two classes of humans.

[00:11:40] Those who can live forever, and those who can’t.

[00:11:44] Given how expensive it would likely be, it would only be the absolute richest in society, the billionaires, who could afford it, while the rest of us contented[55] ourselves with the fate that has met every other human being on the planet.

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[51] a surgical operation in which an alternative blood channel is created to improve blood flow

[52] the process of putting one thing in the place of another

[53] set a limit on what we accept

[54] kept

[55] accepted as something that is enough

[00:11:58] The former President of Facebook, Sean Parker, said in 2017, “Basically I’m a billionaire, I’m going to have access to better healthcare so… I’m going to be, like, 160 and I’m going to be part of this class of **immortal**[56] **overlords**[57].”

[00:12:14] So, his theory is that society will split into two **tiers**[58], two levels - those who can live forever, or at least those who are able to extend their **lifespan** significantly past what is currently thought to be possible, and the rest of us.

[00:12:32] This also **begs the question**[59], is this actually as attractive as it might sound **at first glance**[60]? Or does it sound terrible, even when you first hear it?

[00:12:42] If you could live until you were 160, 200, or more, but only other billionaires were able to do it, would you?

[00:12:51] **Presumably**[61] many of your friends, family, and colleagues would not be able to afford this, and, **ironically**[62] perhaps, your life would be filled with much more death

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[56] living forever

[57] people with great power

[58] levels

[59] causes an obvious question

[60] when considered for the first time

[61] most likely

[62] in a strange way because of being very different from what someone would expect


 

and sadness than the rest of us, because you simply live a lot longer and you see your friends and family dying.

[00:13:10] We are still a long way away from this future, but it is thought to be more **achievable**[63] than ever before.

[00:13:17] But before this future arrives, **immortalists** are doing everything they can to **extend** their lives, so that they are still alive when a cure is discovered.

[00:13:28] The idea goes that if someone who is 50 can buy themselves an extra 10 years every 10 years, they will survive for long enough for the technology to be developed, and the keys to **eternal** life will be theirs.

[00:13:42] There are **all manner of**[64] weird and unusual things that people are doing at the moment, from taking vast quantities of **supplements**[65] every day, to **fasting**[66], that's not eating for an **extended**[67] period, to drinking what's called Bulletproof coffee, which is coffee with a load of butter mixed into it.

[00:14:01] The reality is that, other than things like not smoking, eating well and doing exercise, we simply don't know for certain what causes us to live for longer.

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[63] possible to achieve

[64] all kinds of

[65] substances added to complete a diet

[66] avoid eating for a long period

[67] long


 

[00:14:11] And life is full of **anomalies**[68], exceptions to the rule.

[00:14:15] There are, unfortunately, plenty of tragic stories of people who were incredibly healthy, didn't drink or smoke, but died of a heart attack in their 40s.

[00:14:26] And there is the case of the man who was the oldest surviving British veteran of the First World War, who lived to 113 years old, and **attributed**[69] his **longevity**[70] to "Cigarettes, whisky and wild, wild women - and a good sense of humour."

[00:14:43] He was, I'm sure, half-joking, but life, or rather, death, isn't always fair when it comes to when our bodies decide that our time is up.

[00:14:53] If we do believe, though, that our bodies are simply an incredibly complex code that we can **crack**[71], then it isn't **beyond the realms of possibility**[72] that we could **crack** death, we could solve the problem, and change the destiny that has faced every person to have ever walked on the Earth.

[00:15:11] And if the cost was reduced to the **extent**[73] that everyone could escape death, what would that mean?

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[68] things that are different from what is standard and expected

[69] regarded something as resulting from a specific cause

[70] living for a long time

[71] find the solution to, understand

[72] impossible

[73] amount


 

[00:15:17] The Earth's population is already projected to top 10 billion people by the end of this century, and that calculation takes into account the 150,000 people who die every single day.

[00:15:31] What if they didn't?

[00:15:32] Obviously, this would be hugely problematic from the point of view of resources, assuming that we still need to eat, sleep, and live a semi-normal life.

[00:15:43] To state the obvious, a cure for death would be the most significant discovery in human history, and cause a **seismic**[74] **shift**[75] in how we all live our lives.

[00:15:54] Whether this would be the most amazing development, or whether it would turn life into a living hell, is certainly up for debate.

[00:16:02] Luckily, or unluckily perhaps, we are still a long way away from any of this becoming a reality.

[00:16:10] We humans might not live as long as the Greenland Shark, the fish that lives in the North Atlantic and can live to over five hundred years and doesn't get cancer.

[00:16:20] But, we have a much better chance than anyone before in human history to live a longer, healthier life.

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[74] having highly significant consequences

[75] change

[00:16:27] And even though it might not be forever, it's certainly something that I think we can all feel pretty happy about.

[00:16:36] OK then, that is it for today's episode on the quest for **eternal** life.

[00:16:41] I hope it's been an interesting one, and that you've learnt something new.

[00:16:45] As always, I would love to know what you thought of this episode.

[00:16:49] If you had the chance to live forever, would you take it? And why?

[00:16:54] And how do you think the world would be different if we could all live forever?

[00:16:59] Let's get the discussion started...you can head right into our community forum, which is at community.leonardoenglish.com and get chatting away to other curious minds.

[00:17:10] You've been listening to English Learning for Curious Minds, by Leonardo English.

[00:17:15] I'm Alastair Budge, you stay safe, and I'll catch you in the next episode.

[END OF EPISODE]

## Key vocabulary

| Word | Definition |
|---|---|
| **Quest** | a long and difficult search |
| **Eternal** | lasting forever |
| **Unites** | brings together |
| **On the cusp** | at the point when something is about to happen |
| **Immortality** | the ability to live forever |
| **Prolonging** | making something last longer |
| **Preventing** | stopping something from happening |
| **Implications** | problems |
| **The dawn of time** | since the beginning of time |
| **Riches** | large amount of money and possessions |
| **Contemplate** | think about something for a long time |
| **Mortality** | the fact that people don't live forever |


 

| | |
|---|---|
| **Prevent** | stop something from happening |
| **Protagonist** | the main character of a story |
| **Side effect** | an unpleasant effect of a medical treatment |
| **Futile** | pointless |
| **Embrace** | accept |
| **Fundamental** | basic |
| **Boundaries** | limits |
| **Inevitable** | certain to happen |
| **Obsessed** | unable to stop thinking about something |
| **Indifferent** | not interested in something |
| **Extending** | making something last longer |
| **Life expectancy** | the length of time a human being is likely to live |
| **Discrepancy** | difference |
| **Development** | progress, advancement |
| **Lifespan** | the length for which someone exists |


 

| | |
|---|---|
| **Give up** | stop trying |
| **Combination** | a joining |
| **Affordable** | not expensive |
| **Modify** | change something in order to make it better |
| **To a certain extent** | in a limited way |
| **Replacements** | the processes of putting one thing in the place of another |
| **Extend** | make something last longer |
| **Immortalists** | people who support the idea that, with the help of science, people can live forever |
| **Reverse** | change the result of something to its opposite |
| **Struck** | hit with force |
| **Lump** | a piece of a substance or material |
| **Merely** | simply, just |
| **Signals** | actions that carry information |
| **Entrepreneur** | someone who starts a new business |


 

| | |
|---|---|
| **Implantable** | designed to be connected to a person's body |
| **Interfaces** | connections between a person and a computer |
| **Attained** | achieved |
| **Transplanting** | moving something from one place to another |
| **Ageing** | becoming older |
| **Malfunction** | failure |
| **Load** | plenty |
| **Hooked up** | connected |
| **Presence** | the state of existing or being present |
| **Heart bypass** | a surgical operation in which an alternative blood channel is created to improve blood flow |
| **Replacement** | the process of putting one thing in the place of another |
| **Draw the line** | set a limit on what we accept |
| **Stored** | kept |
| **Contented** | accepted as something that is enough |
| **Immortal** | living forever |


 

| | |
|---|---|
| **Overlords** | people with great power |
| **Tiers** | levels |
| **Begs the question** | causes an obvious question |
| **At first glance** | when considered for the first time |
| **Presumably** | most likely |
| **Ironically** | in a strange way because of being very different from what someone would expect |
| **Achievable** | possible to achieve |
| **All manner of** | all kinds of |
| **Supplements** | substances added to complete a diet |
| **Fasting** | avoid eating for a long period |
| **Extended** | long |
| **Anomalies** | things that are different from what is standard and expected |
| **Attributed** | regarded something as resulting from a specific cause |
| **Longevity** | living for a long time |


 

| | |
|---|---|
| **Crack** | find the solution to, understand |
| **Beyond the realms of possibility** | impossible |
| **Extent** | amount |
| **Seismic** | having highly significant consequences |
| **Shift** | change |

*We'd love to get your feedback on this episode.*

*What did you like? What could we do better?*

*What did you struggle to understand?*

*Let us know in the forum community.leonardoenglish.com*