But Why: A Podcast for Curious Kids

Why can’t we remember being babies?

January 9, 2026

Jane 00:20
This is But Why: A Podcast for Curious Kids, from Vermont Public. I'm Jane Lindholm. On this show, we take questions from curious kids all over the world, and we find answers. Have you ever...Have you ever...shoot, I forgot what I was gonna say! Good thing today's show is all about memory. We're going to talk with someone who can help us understand why we forget things and how we remember.

Nick Turke-Brown 00:48
I study how the brain works and the magical things it does that help you learn and remember and make decisions and get along with your siblings and be creative, make art or music, have ideas and go about and grow into, you know, adults.

Jane 01:08
That's Nick Turke-Brown. He's a professor of psychology at Yale University. Psychology is the study of how we think and behave and how our minds work. Professor Turke-Brown was excited to hear what kinds of questions you've sent us about memory. So let's get right to them.

Brynn 01:26
Hello, I'm Brynn. I'm 11 years old, and I live in New Katie, Texas. How does memory work?

Logan 01:33
Hi, I'm Logan. I'm six years old. I'm from [unclear]. How do humans remember stuff?

Zeph 01:40
My name is Zeph, I'm six years old, and I live in Austin, Texas, and my question is, how do we remember things?

Clara 01:48
I'm Clara and I'm five years old. I live in Oak Park, Illinois. How do you remember something?

Noah 01:58
My name is Noah, and I'm three years old. I live in Sunnyvale, California. How do brains remember things?

Nick Turke-Brown 02:08
Memory is basically your brain keeping a record of things that you experience. So when you see something or you hear something, or you go somewhere, that changes your brain, and your brain is

able to then hold on to that experience and carry it forward in time until you get reminded of something, or you see something again, or you go back to the same place, and you're transported back to the last time you saw that thing, or you were in that place. And so basically it has to do with the effect of seeing or hearing or doing something on what's in your brain. And so your brain is like a recording device. You could think of it like a phone or a camera, but it's happening all the time without you trying. And it's really amazing how well it works. So that's essentially what's storing memories, is that when you have experiences, your brain changes.

Jane 03:09
The really cool thing about that is there are different parts of the brain that store different things and help you form different types of memories.

Nick Turke-Brown 03:17
Some parts of your brain remember when you learn how to ride a bike, you know that experience of falling off and then getting going and pedaling and moving fast, and that part of memory, you could think of it, what we might call motor memory, or how to do things, is supported by some parts of the brain. But there are other kinds of memories, too. You have preferences, like you like macaroni and cheese, or you like pizza. Those are preferences, things that you find rewarding or valuable. There are other parts of the brain that store those kinds of memories. When you eat something that you really like, or when you do an activity that you really enjoy. Then we have other kinds of memories that are, I think of as maybe what people normally refer to as memory, is like remembering a specific event. So I might remember going on a vacation or my last birthday party, or when I got grounded, or when I got my first, you know, tablet, or when I had some very memorable experience visiting a grandparent, those those events in our life, that's a different kind of memory, and that's supported by another part of the brain. And so that's kind of the answer is your brain is influenced by what you experience. Different parts of the brain are storing different parts of the experience.

Jane 04:40
Not only are different parts of the brain involved in recording and saving those different types of thoughts or experiences, but there are a couple different stages when it comes to remembering them. The first one is that initial stage of thinking or feeling or experiencing something and kind of recording it in your brain.

Nick Turke-Brown 05:00
That's what we call encoding. It's like the storage of the memory, but to make it stick, your brain sort of chews on it a little bit. It has to keep processing that information, and that's what happens during sleep. You think of dreaming as a kind of chewing on your memories, and what that does is it makes them more stable. It helps them stick around longer. So that's the second part. So you initially, you store the memory, or encode the memory, and then you consolidate the memory during sleep, and then the final part is retrieval. You have your next birthday party and you remember the last one, or you go to a place that you haven't been in a while and you remember that, or you remember some piece of information that somebody told you, or you remember how to do something, and you're accessing something that's been stored and consolidated in your brain. So that's what I would say what memory is, it's changes in

your brain, different parts of your brain, and there's these different stages of encoding, consolidation and retrieval.

Jane 05:58
You know, it's interesting. You mentioned something like our preferences, the things we like and dislike. And I hadn't thought of that as memory, but of course, it's tied to your experiences in the past. So something like, if you really like cheesecake, but then one time you have cheesecake, and then the next day you get the flu and you throw up the cheesecake, you're gonna remember that and you're gonna not like cheesecake anymore, even though maybe those two things actually didn't have anything to do with each other. Your brain makes an association, and that can change your preferences, which is, of course, tied to your experiences and memory.

Nick Turke-Brown 06:36
Yeah, that's there's a name for that. It's called the Garcia Effect. So it might have been the cheesecake that made you feel sick, but because the cheesecake occurred before you got sick, it gets associated with that feeling of sickness, and then you afterwards, you might not be attracted to it as much, or like it as much, or you might want to avoid it. And so, yeah, that's a kind of memory. It's very fast memory. That only has to happen once, and then for the rest of your life, you might not like cheesecake anymore.

Jane 07:06
What a bummer.

Nick Turke-Brown 07:07
Yeah.

Jane 07:07
Yeah, and then those ideas like learning how to ride a bike and remembering how to do it, or when you have something that you have to learn in science class and you're going to have a test about it and so you have to remember it. And often, we're told, if you're studying to learn something for a class, the best thing you can do is get a good night's sleep before your test. So that's what you're talking about, Nick, with the idea that your brain needs to get all of that stored in the right place so that you can pull it out when you need to retrieve it, or when you need to know that fact. So sleep really is important for learning and memory.

Nick Turke-Brown 07:43
Definitely. People remember better, and they not only remember the details of what they learned before after sleep, but you're also able to use that experience in new ways, what's called generalization, taking something you learned before and applying it in a new setting. We do that in school all the time. You learn some concept about biology, and then you have to apply it in a new way, or you learn how to use a certain trick in math class, and now you have to use that to answer a new question that you haven't thought about before. So that ability to take memories and use them in new ways, that is the specific benefit of sleep, and you can see why that'd be really important for a test.

Jane 08:24
We got a lot of kids who want to know why they can't remember things from when they were really little.

Sage 08:31
Hi, my name is Sage. I'm eight years old. I live in Los Angeles, California. Why do we forget things that happened when we were babies?

Lola 08:40
Hi, my name is Lola. I'm eight years old. I live in Palos Heights, Illinois. Why can't you remember stuff from when you were little?

Iris 08:50
Hi, my name is Iris. I am nine years old, and I live in Melbourne, Australia. Why can't we remember when we were little?

Julius 08:57
Hi, my name is Julius. I am seven, eight years old. I live in Ottawa, Ontario, Canada. Why do people forget things from when they're little?

Natalie 09:10
Hi, my name is Natalie. I'm eight years old, and I live in netherford, New Jersey. Why can't we remember when we were babies?

Archer and Maddie 09:19
My name is Archer, and I'm seven years old. And my name is Maddie, and I'm 10 years old. We live in Melbourne, Australia. Why can't we remember things from when we're little?

Nick Turke-Brown 09:33
Yeah, this is what's known as infantile amnesia. So amnesia is a fancy word that means forgetting. Infantile means from the time that you were an infant or a baby. Generally, as older kids and adults, we don't remember much from the first few years of our lives. Usually, if you ask somebody, what's your first memory, if they're old enough, they'll they'll generally say, you know, somewhere between four and seven years old. Now, if you're a five year old, you might remember something from when you were two or three, but by the time you're seven or eight or nine, that's going to be gone. So why? It's a deep scientific mystery. It's one of the topics that my lab at Yale University works on. We study what's happening in the brains of babies and toddlers as they're forming memories. And so we're trying to figure out why it is that we don't remember what happened during that time.

Nick Turke-Brown 10:31
Now, I think it's important to say it's not just that time passes and we forget things. So it's not just that, you know, that was a long time ago when you were a baby and so of course, you forget it. Because later on in life, you're going to remember things from a long time ago, you know, from when you're 10 years old or 20 years old, but there's a specific time when you're sort of zero to four years old where you don't remember very much. So we're talking before about how there's different stages of memory,

like there's the encoding, the storage part of the memory, there's the consolidation, and then there's the retrieval, like accessing the memory. And so each of those stages is a possible point at which you might have a failure, when you're really young, and be unable to kind of access those memories. So is it that babies don't store memories, so there's nothing to retrieve later on because you didn't store a memory in the first place? Or do they store them fine, but later in life, we just can't access them for some reason, we can't retrieve them? And so our research suggests that starting around 12 months, so around one year old, babies are able to start storing memories in their brain. And this is much earlier than people's first memories, so it suggests that there are memories being stored by around one year of age, and we lose access to them later on. And so we're trying to figure out why is it that we can't access those memories? And there's the there's the sort of science fiction possibility that we still have those memories in our brain from when we were babies, and we just can't get back to them using the normal way. And so maybe there are, you know, tricks we could use to remember things from earlier in our life.

Jane 12:12
You know, if you spend time with a very young kid, if maybe you have a little sibling who's one or two, you might be aware that they seem to have really great memories, because you might have a two year old brother or sister who every time they pass one street, they just say "Bird!" because you saw a goose there once, and you would forget that there was a goose there one time, because it either wasn't a very important moment, or you've got a lot of other things you're trying to remember, but that toddler remembers that one little detail. It sometimes seems like toddlers have really great memories.

Nick Turke-Brown 12:50
Yeah, I think that's right. That's part of the reason we started studying this. How is it that as adults, we don't remember anything for that period, and yet, young kids often have, like, pretty good memories?They remember a person that they met, or a magician they saw at the at the park, or a song that they love, or they remember that after this turn in the road you get to their daycare, or you remember some little toy you know that they got on Halloween. So I think that infants and toddlers have memory, and for whatever reason, those memories don't stick around, and they might still be there and just inaccessible, or they might get lost with the passage of time, but that's what we're working on. It's definitely true that kids, especially babies and toddlers, are learning a tremendous amount. We talked about learning how to ride a bike or developing food preferences. That's all happening in the first couple years of life. If you think about learning language, every baby who's brought up in a home where they hear a language learns that language without really trying, and actually, they learn it much better than an adult or an older kid can learn that language. We're really, really good at learning early in life. We learn how to walk. We learn about relationships with siblings and with parents. We learn about food. We learn about our home environment. We learn the names of objects. So infancy is an incredible period of learning, and that makes it even more mysterious why we don't remember anything from that time.

Bennett 14:27
I am Bennett. I live in Sammamish, Washington, and I want to know how and why do brains forget.

Mac 14:35

My name is Mac. I'm six. I'm from Indianapolis. Why do we forget?

Clara 14:42
Hello. My name is Clara. I am six years old. I am from Superior, Colorado, and my question is why do people forget things?

Nick Turke-Brown 14:55
Forgetting is sometimes frustrating, like you're trying to find a toy or you're trying to remember somebody's name, but a lot of the time, forgetting is not such a bad thing. Memory is limited, and forgetting helps clean up our memories. So when you try to remember something, it might be hard to access it, and that's because a lot of other memories are coming to mind. You might be trying to remember one thing and you're remembering other unrelated things, and that's called interference. So part of the reason we forget things is because other unrelated memories are coming to mind and distracting us or confusing us. So forgetting is a way of, kind of cleaning up memory and removing or reducing interference. And we think of forgetting as bad, but I want to emphasize that some forgetting is good, and it makes your overall memory better. It makes it better able to remember the most important things.

Jane 15:51
So forgetting isn't all bad news, but it can also be so inconvenient when it happens.

Ella 15:59
Hi. My name is Ella. I am seven years old. I'm from Bannockburn in New Zealand, and I would like to know why do we forget what we are going to say while we are waiting for our turn to speak?

Nick Turke-Brown 16:15
Yeah, so I think there's a lot of the kinds of memory we've been talking about: remembering a birthday party or how to ride a bike, or facts that you learn in class, I would call those with long term memory, memories that stick around a long time. There's another kind of memory, called short term memory, which refers to holding on to information in our mind for a short period of time. So if you're in class and you're waiting to ask a question, you might have thought about this question. You're waiting your turn, and you have your hand up, and you're holding that question in your mind, and then you get called on and you can't remember what you wanted to say. That's a failure of short term memory. And what happens in short term memory is that in order to keep that memory alive, you have to actively think about it; you have to focus on it. And so anything that happens that might distract your attention--somebody else asking a question that you think is interesting, or, you know, I don't know, a siren that passes on the street, or maybe some other question that comes to mind in response to what somebody else is talking about, that could distract you. And when you get distracted, you lose your grip on that short term memory that you had in mind. So in that situation, it's probably about distraction. Those kinds of short term memories also just get weaker over time. So if you're rehearsing something in your mind, you're holding on to some information, the longer you have to do that, the more likely you are to forget it.

Jane 17:43

We were talking earlier about how important sleep is to memory, but Claire is wondering,

Claire 17:50
Why do we not remember things we say in the middle of the night when we say we want to remember them in the morning?

Jane 17:57
And is it the same thing if, let's say you fall asleep in the car, and your adult wakes you up to go to your bed, and you say something, and then the next morning, they say, do you remember that silly thing you said when I was carrying you back to your bed? And you're like, No, I don't remember that! Same type of thing?

Nick Turke-Brown 18:14
Yeah, it's probably similar. If you're less awake, it's very hard to pay attention when you're dozing off. So it might be you're also just not storing memories very well at that point.

Jane 18:23
It's fascinating to think about how our brains are hard at work while we're both awake and while we're asleep, even though we're not necessarily aware of all that work our brains are doing to consolidate, store, retrieve and even remove memories. After the break: why are some people forgetful, and do elephants really never forget?

BREAK 18:44
BREAK

Jane 18:47
This is But Why! I'm Jane Lindholm, and today we're learning about how our brains remember things with Professor Nick Turke-Brown of Yale University.

Ava 18:57
Hello. My name is Ava. I'm nine years old. I'm from Peterborough, England. Why are some people forgetful?

Nick Turke-Brown 19:05
Yeah, you know, some people have better memories. Some people have worse memories. Even within what you would expect of healthy you know, typical kids and adults, there are people who are more forgetful than others. There's even people who have really amazing memories, you know, better memories than everybody else in general. But all of this is pretty normal, like even people who you would think of as forgetful, are still healthy and remember what they need to remember to do well. There are people who have worse memories because of medical conditions, like if they have something called mild cognitive impairment or dementia, or you might have heard of Alzheimer's disease. These are medical conditions that make memory much worse, where you forget loved ones, even. But within the healthy kind of typically developing population, there's variation, but it's all pretty normal and to be

expected. And again, remembering more is not always better. What you would want to remember is the important things, not everything.

Tyce 20:15
Hi, I'm Tice. I am nine years old. I live in Bluffdale, Utah. Why do we forget things? And what does our brain do with the things we forget?

Nick Turke-Brown 20:27
Well, there's lots of different reasons you can forget. Like, the memories can be sort of erased. How memories are stored in the brain is through cells in the brain called neurons. These are like cells in the rest of your body, but neurons are cells in your brain, and they they connect with one another. They touch each other. And how they connect with one another is how memories are stored. Those are called synapses. Those are how two cells talk to each other, and the pattern of how cells are connected to each other is how memories are stored. This is different from our computer stores, you know, a file or a photo, but our brains store memory is that way. And so if you lose those connections, either the cells themselves die, sometimes over time, or you lose some of the connections break down, or the brain region grows or changes in its composition, those memories can essentially get get erased so that they're gone. That's one kind of change that happens in the brain. That was one of the theories of infantile amnesia that we were talking about before, is that as you get older, and that sort of three to four year old range, you have a lot of new cells in your parts your brain that store memories, and they might be overwriting memories that you already have in there. That's called neurogenesis, like the birth of new neurons. So that's one kind of erasing.

Nick Turke-Brown 21:49
Another kind of forgetting that happens in the brain is when there's a disconnect between how the memory is stored and then how you access it. So you might have some cells that are connected in the brain through synapses in a certain way that stores a memory. But if, when you see a familiar person or you go to a familiar place, it doesn't get matched to that memory, you're not going to be able to call it to mind and retrieve it and remember that earlier experience. So it's not that the memory itself is gone, it's that you can't get it. It's like if you have a book and you can't find your book, right, you know you have the book you might look on your bookshelf and you just can't find it. So you can't read what's inside it. It's that kind of an issue. The book still exists. It's just under your bed or somewhere else. You just can't get to it. And so that's another reason why we forget a change that happens in the brain is that the cues, the things in the world that remind us of things, just don't map onto or can't be used to access the memory. And for example, when you meet somebody you know at the park or at school, you don't just remember that person's face or their name. You link that person to the place that they're in. So you remember that you met this kid on the playground, and if you see that same friend at the grocery store, you might not even recognize them, because that's not where you saw them the first time. So memories are stored in what's called a context, in a place, in a situation. And so a lot of forgetting occurs because we're not in the right context. You go to the grocery store, you're not expecting to see a friend that you just met on the playground, and so it's harder to recognize them. And so a lot of forgetting happens when we're just not in the right mindset in order to access a memory.

Jane 23:39

We have just a couple more questions. One is from Poppy, who wonders...

Poppy 23:43
Why, when you bump your head hard on something hard, you lose your memory?

Nick Turke-Brown 23:49
Yeah. Hopefully Poppy's not bumping their head a lot like this, because it's, it's usually not a great sign if you have an accident, or you fall off your bike, or you fall down on the playground and you bump your head and you can't remember something, you definitely should tell a parent or and maybe go see a doctor. That can be a sign of a concussion or sometimes called a traumatic brain injury, TBI. So that's not a common thing, hopefully, to bump your head in a way that would make you forget. But it is the case that when people get in accidents like a car accident or a bicycle accident, or fall on a playground, that can cause either temporary or longer lasting damage to the brain. It could be that in the moment, you know you're playing with your friends, and you fall and then you can't remember what you were just doing a moment ago. That could be because you maybe you lose consciousness, or maybe you're in a lot of pain, and you sort of forget what you were doing. So that that would be a less scary version of this. But if you had a more significant accident that caused brain damage, that can cause damage to parts of your brain that are really important for memory, and so it's not unusual in cases of bad accidents like that, to damage some of the parts of the brain that are important for memory, or some of the connections in the brain that help you to take a memory and then act on it. So I would think of that as, hopefully, a rare event, but it is a real consequence of accidents that people have problems with memory.

Annika 25:29
My name is Annika, and I'm five years old, and I live in Chicago, Illinois. How do grownups remember everything?

Nick Turke-Brown 25:40
Well, the good news for Annika is that grown ups do not remember everything.

Jane 25:46
I can say that's true.

Nick Turke-Brown 25:47
I can say that as a grown up, but it sometimes feels like that when you're talking with your parents, they're like, know it alls or have all the they have all the answers when you ask them a question.

Jane 25:57
Or they remember, I told you to clean your room yesterday.

Nick Turke-Brown 26:00
They remember some deal they made with you. But the answer is that grown ups don't remember everything. Adults and kids, we store some memories, but not everything. It is also the case so that adults have more experiences. So if you think of what we were talking about before as memory being

about, you have some experience, you're doing something, and your brain is plastic. It's like Play Doh, it's being molded based on your experience. Adults just have more of that. You know, they've gone through school, they might have a job, they have a family, they have some skills, they have a lot of responsibilities. So they've gained knowledge over time, and they can use that knowledge to answer questions or even to store memories better. The more you know about the world, the easier it is to store memories, because you're taking things you already know and recombining them in new ways. So it is the case that adults have more knowledge. That's a kind of memory. It's often called semantic memory, memory for facts or details. That is something that increases over your lifespan as you have more and more experiences, as you spend longer in school, and as you you know, learn new things. So adults do have more of that, but I wouldn't say that they remember all of the events or experiences that they've had in life any better than than an older child would.

Eva 27:19
My name is Eva. I am eight years old. I live in Dayton, Ohio, and my question is, how do elephants remember everything?

Nick Turke-Brown 27:27
Yeah, it's really interesting. You know, elephants have good social memories for other elephants. They have good memories for navigation routes. So they kind of move a lot through their through their environment, and they can remember different locations in their environment well. They have an interesting social group dynamics, and so they remember about how other elephants are behaving. And so they do have good memories, but I don't think they're exceptional. Most large animals and even a lot of small animals have great memories. It's really important to survive in the natural world, to learn from trial and error, to learn from experience, to learn what's safe and what's not safe, or who's kind and who's unkind. Evolution has endowed our brains with the ability to store memories, and that's true of almost all species. In animals like mammals, we have brains that are really evolved, that have certain parts of the brain, like a region called the hippocampus. It's like a hippopotamus, but hippo-campus. And that brain region is in mice, in elephants, in humans, and it stores memories in all of those animals. So animals vary a lot in what kinds of things they remember. You know, mice might remember how things smell. Dogs might remember how things smell better than humans. Elephants might remember large environments better because they move a lot. So there are different kinds of knowledge or memories that different animals need in order to survive and thrive in their niche, and humans have that too. So elephants, there's kind of the sense that elephants have great memories. They do have large brains. They do have some of these brain structures that are really important for memory are large in elephants, and so they probably do have great memories, but so do so do sea lions, so do humans, so do mice, and without that, we wouldn't be able to learn from our mistakes. We wouldn't be able to make predictions about what's going to happen in a new scenario. We wouldn't be able to build relationships with other animals or humans. So memory is really the core of who we are, and without memory, you lose a bit of your own identity, your own personality.

Jane 29:51
And don't forget your brain is storing memories all the time, not just when you're trying really hard to memorize something. That includes right now. What do you think you're going to remember from this episode? Thanks to Dr Nick Turke-Brown of Yale University for helping us understand how we

remember and how we forget things. He has his own lab where he studies memory. As always, if you have a question about anything, have an adult record, you asking it on a smartphone using an app like Voice Memos. Then have your adult email the file to questions@butwhykids.org. But Why is produced by Sarah Baik, Melody Bodette and me, Jane Lindholm, at Vermont Public and distributed by PRX. Our video producer is Joey Palumbo, and our theme music is by Luke Reynolds, if you like our show, please have your adults help you give us a thumbs up or a review on whatever podcast platform you use to listen to us, it helps other kids and families find us. We'll be back in two weeks with an all new episode. Until then, stay curious!