

The Atlantic

Why Childhood Memories Disappear

Most adults can't remember much of what happened to them before age 3 or so. What happens to the memories formed in those earliest years?



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My first memory is of the day my brother was born: November 14, 1991. I can remember my father driving my grandparents and me over to the hospital in Highland Park, Illinois, that night to see my newborn brother. I can remember being taken to my mother's hospital room, and going to gaze upon my only sibling in his bedside cot. But mostly, I remember what was on the television. It was the final two minutes of a *Thomas the Tank Engine* episode. I can even remember the precise story: "[Percy Takes the Plunge](#)," which feels appropriate, given that I too was about to recklessly

throw myself into the adventure of being a big brother.

In sentimental moments, I'm tempted to say my brother's birth is my first memory because it was the first thing in my life worth remembering.

There could be a sliver of truth to that: Research into the formation and retention of our earliest memories suggests that people's memories often begin with significant personal events, and the birth of a sibling is a textbook example. But it was also good timing. Most people's first memories date to [when they were about 3.5 years old](#), and that was my age, almost to the day, when my brother was born.

When I talk about my first memory, what I really mean is my first *retained* memory. Carole Peterson, a professor of psychology at Memorial University Newfoundland, studies children's memories. Her research has found that small children can recall events from when they were as young as 20 months old, but these memories typically fade by the time they're between 4 and 7 years old.

"People used to think that the reason that we didn't have early memories was because children didn't have a memory system or they were unable to remember things, but it turns out that's not the case," Peterson said.

"Children have a very good memory system. But whether or not something hangs around long-term depends on several other factors." Two of the most important factors, [Peterson explained](#), are whether the memory "has emotion infused in it," and whether the memory is coherent: Does the story our memory tells us actually hang together and make sense when we recall it later?

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But then, this event- or story-based memory isn't the only kind, although

it's the one people typically focus on when discussing "first" memories. Indeed, when I asked the developmental psychologist Steven Reznick about why childhood amnesia exists, he disputed the very use of that term: "I would say right now that is a rather archaic statement." A professor at the University of North Carolina-Chapel Hill, Reznick explained that shortly after birth, infants can start forming impressions of faces and react when they see those faces again; this is recognition memory. The ability to understand words and learn language relies on working memory, which kicks in **at around six months old**. More sophisticated forms of memory develop in the child's second year, as semantic memory allows children to retain understanding of concepts and general knowledge about the world.

"When people were accusing infants of having amnesia, what they were talking about is what we refer to as episodic memory," Reznick explained. Our ability to remember events that happened to us relies on more complicated mental infrastructure than other kinds of memory. Context is all-important. We need to understand the concepts that give meaning to an event: For the memory of my brother's birth, I have to understand the meanings of concepts like "hospital," "brother," "cot," and even *Thomas the Tank Engine*. More than that, for the memory to remain accessible, my younger self had to remember those concepts in the same language-based way that my adult self remembers information. I formed earlier memories using more rudimentary, pre-verbal means, and that made those memories unreachable as the acquisition of language reshaped how my mind works, as it does for everyone.

So what do we leave behind as our earliest memories fade? In my case, I lost an entire country. My family emigrated from England in June 1991, meaning I have no memories of Chester, my birthplace. I grew up knowing England through imported foods and TV shows, through my parents' accents and idioms; I knew England as a culture, but not as a place, as a homeland.

My parents spoke little of Chester, both because it was just somewhere they moved to after deciding to have children—their young adulthood was spent in the more cosmopolitan Manchester—and because they felt the immigrant’s drive to assimilate. After we moved to the Northeast United States, my still very English-sounding father found a new standard answer to the question of where he came from: “New Jersey. Can’t you tell from my accent?”

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To see how well my first memory held up, I called my dad to verify the details. I was worried I had invented the detail of my mom’s parents being there, but he confirmed they had flown over from England for the occasion. He said my brother was born in the early evening, not at night, but considering the U.S. Naval Observatory says sunset in Highland Park that day was at 4:31 p.m., we could both be right. He confirmed my brother’s cot and the television, but he disputed one vital detail, phrasing it with the wary precision of a former doctor: “I won’t say with any confidence that *Thomas the Tank Engine* was on the TV.” Still, we agreed that if there was anything about the day that a 3-year-old would be more likely to remember than the father of a newborn son, it would be that.

The randomness of that detail makes me think it’s more plausible, if only because it would be such a bizarre thing to add in years after the fact. False memories do exist, but their construction appears to begin much later in life. [A study by Peterson](#) presented young children with fictitious events to see if they could be misled into remembering these non-existent events, yet the children almost universally avoided the bait. As for why older children and adults begin to fill in gaps in their memories with invented details, she pointed out that memory is a fundamentally constructive

activity: We use it to build understanding of the world, and that sometimes requires more complete narratives than our memories can recall by themselves.

And, as people get older, it becomes easier to conflate actual memories with other stimuli. Reznick told me of a distinct memory he has of riding in a toy wagon and tractor with his sister. The problem is that he doesn't so much remember doing it as he remembers *seeing* himself do it, and he discovered why when he came across an old photograph of him and his sister riding in that very same wagon and tractor on the sidewalk outside their childhood house. He had forgotten having seen the photograph before but had remembered what it depicted, and the latter over time became its own memory.

As he spoke, I thought of my only memory that might predate my brother's birth. There's a vague image in my head of my pint-sized self sitting between my parents on the plane ride to America. My dad confirmed the scant details I could provide were accurate, but the problem is one of vantage point. This isn't a first-person memory like my trip to Highland Park Hospital, but rather a mental snapshot taken—or, more likely, constructed—of the three of us from the perspective of the plane aisle. Besides, a crucial detail is wrong: My “memory” forgets the fact that my mom would have been four months pregnant at the time. My dad assured me she was already showing by then, even if my mom would have strenuously denied that if asked. Perhaps my memory was just being exceedingly polite.

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But even as the stories people tell about themselves reshape their memories, so too can memories—even the ones they've long forgotten—

shape them. In 2012, while visiting my now college-age brother during his semester spent studying in London, I traveled to the west of England to see my birthplace for the first time. The first time I could remember, anyway. I had to change trains at the station in Crewe, a town that only meant anything to me because it was mentioned on, yes, *Thomas the Tank Engine*, as a place where engines were constructed or rebuilt—not unlike memories, I suppose.

I was in Chester for less than a day, but there was something ineffably *right* about that little city. The feeling was elusive, yet unmistakable: I was home.

Was my brain simply attaching outsize importance to Chester because my adult self knew its significance, or could these feelings be triggered by genuine, pre-episodic memories? Reznick says it could be the latter: “I think what could endure is what’s called recognition memory.”

He explained that recognition memory is our most pervasive system, and that associations with my hometown I formed as an infant could well have endured more than 20 years later, however vaguely.

When people in Chester asked me what I, a lone American, was doing in their small English city, I responded, “Actually, I’m from here.” It was the first time in my life that it felt entirely accurate to say that, with no need for qualifications or caveats. I honestly can’t remember if I ever followed that up with a mock-quizzical, “Can’t you tell from my accent?” But give me enough time, and I’m sure that detail will be added to my memory. It’s just too perfect a story.

ABOUT THE AUTHOR

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