## My Son Has Memories of His Late Grandfather, But They Never Actually Happened

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After my son vividly described happy events that never occurred, I had to figure out what was going on.



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## Hearst/Amy Paturel

One morning while I was making my late father's signature Crêpes Suzette, I reminisced about his knack for whipping up breakfast. He'd sprinkle brown sugar down the center of the crêpe, top the sugar with a piece of bacon and roll it up like a burrito.

"It breaks my heart that you'll never really know him," I said to my three sons.

"But we do know him, mommy!" my 9-year-old, Max, piped up, before regaling me with tales about my dad tossing him in the pool, playing smash ball at the beach, even rocking out to "Just Dance" on New Year's Eve. The catch: None of it happened. When my dad got sick, Max was only 5. He didn't know yet how to swim. He watched my dad play smash ball with his older cousins. And "Just Dance" wasn't yet on our radar in 2018.

Flummoxed, I asked Helen Marlo, Ph.D., chair of the Department of Clinical Psychology at Notre Dame de Namur University in Belmont, California, how Max could encode memories he never experienced. "Early childhood is a period of rapid growth in the brain, and imagination is a critical part of healthy development," she says. "So what might seem like a fabricated memory can be the normal byproduct of a brain that's growing and developing."

It turns out, a variety of developmental processes occur in the childhood mind that complicate kids' ability to accurately recall information, including: greater reliance on sensory data, immature frontal lobes that aren't fully integrated and susceptibility to implanted suggestions from other people.

According to Dr. Marlo, during early childhood, the right hemisphere of the brain (the sensing and feeling side) is dominant while the left side of the brain (the thinking side) is woefully underdeveloped. Without words or thoughts to articulate their experiences, children's minds rely largely on sights, sounds, smells, tastes and touches — and their active imaginations — to complete the picture. And whether they describe their fabricated memories or not, all children do this.

"When kids reach their elementary school years, they face the challenge of integrating the left side of their brain with the right," Dr. Marlo says. "What they create in their so-called memory includes tapping into this giant reservoir of feeling and sensory memories from their right hemisphere. These may not be historically correct, but they're drawing from their right hemispheres are part of their real and imagined experience."

For adults and kids alike, memories are encoded based on prior knowledge, attention, motivation and understanding. Imagine yourself sucking on a lemon; your mouth might pucker. You might even sense a sour taste inside your mouth. With just a hint of data, your mind can conjure a near-complete experience. It turns out, young children's minds are especially adept in this arena. What they're not good at? Accurately recalling events.



The writer's father in the pool with her nephew. Her son remembers swimming with his grandfather, but it never happened. Courtesy of Amy Paturel

Children's brains are so busy categorizing the world and developing patterns, they fail to record specifics. "Through early adolescence, <u>children's ability to remember exact details is poor</u> relative to adults, which makes them especially prone to false memories arising from suggestion," says Charles Brainerd, Ph.D., a professor of psychology at Cornell University. Dr. Brainerd adds that children's memories become reliable much later than you might guess, at around 9 or 10 years old. And because our brains are still developing through our mid-20s, suggestibility doesn't reach its low point until young adulthood.

So while Max and his twin, Brian, may remember my dad's last Christmas, they probably don't remember the toy soldier pajamas he wore, at least not from their own memory banks. It's doubtful my 7-year-old, Jack, has any recollection at all (he was only 3 when my dad's health began declining). Instead, when they hear stories about my dad's holiday traditions, proclivity for making messes and passion for lottery playing, their childhood minds store them as new memories.

"The more a child thinks about these memories, the more real they become," Dr. Brainerd says.

I talk about my dad a lot. My kids know he loved to pull pranks, delighted in watching hummingbirds and that his tone-deaf renditions of Neil Diamond's "Forever in Blue Jeans" could clear a room. They have even adopted some of these behaviors as their own.

"Children learn very quickly and they incorporate experiences and build on their memories over time," says Ira Chang, M.D., a neurologist at Swedish Medical Center in Denver, Colorado. "If they don't have a clear picture of a person or experience, they may fill the gaps with input from other people and then store it as a new memory."

Called reconstructive remembering, this process allows children to piece together a picture that makes sense based on their lived experience *and* implanted suggestions. It's like a jigsaw puzzle where kids' sensory memories act as the edges. Over time, implanted suggestions become the middle pieces, creating a more complete, if not completely accurate, panorama.

Young minds are also primed to form emotional attachments and <u>encode information</u> based on learned patterns and expectations. So it could be my kids developed a composite of my dad based on social constructs and prior knowledge. "Pattern recognition is important for kids," Dr. Chang says. "So *this is what a grandfather does* becomes *this is what my grandfather did*."

To make matters more mind-boggling, preschoolers' brains are uniquely suited to <u>record</u> <u>memories relayed to them by someone else</u>, according to a 2020 study published in *Cognitive Processing*. One reason for the superhuman recall: mirror neurons. These bright brain cells not only fire when a child plays volleyball, for example, but also when that child watches someone else playing volleyball, even when he hears about someone's winning game.

"If they're watching someone do something, they may be imagining, *how would I do that*?" Dr. Chang says. "Then the picture they imagined gets amplified in their mind." Experiences can also get jumbled together, so the child's mind can encode three different memories as one distinct experience.

Maybe when Max saw his grandpa tossing his cousins in the pool years ago, he imagined himself in that scenario. Or maybe when my brother-in-law splashed around with Max in the same pool a year or two later, Max substituted my brother-in-law for my beloved dad. Whatever the reason, Max "remembers" playing with my dad in a pool, even though it never happened.

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Do I tell my kid his recollections are off? Do I explain that his mind is jumbling facts and misplacing puzzle pieces? "Not necessarily," Dr. Marlo says. "In this instance, there's an injury to empathy if you tell him the historical truth."

"If there's a falsehood in a memory, consider the importance of getting it right and straight," Dr. Marlo adds. "What are the consequences of ramming the truth down someone's mind? I had patients believe that they were abused when they weren't. That's something you absolutely need to correct. But is there a felony that Max thought he had these experiences with his grandpa?"

Instead of fixating on what's true and what's not, Dr. Marlo challenged me to consider whether Max's "memory" is symbolically true. Does it enrich his life and help him better understand who he is and where he came from?



A fun guy: When writer Amy Paturel got married, her father dressed up as a server and worked the room during the rehearsal dinner. It took guests a while to figure it out. Courtesy of Amy Paturel

Max's memories of my dad as a fun grandpa who frequently engaged in tomfoolery are not off the mark. Had he lived, there's no doubt my pops would have mastered Just Dance's "Rasputin," or at least given it a comedic effort.

"There's a solid body of grief research on continuing bonds that suggests it's healthy to maintain relationships with loved ones after they're gone," Dr, Marlo says. "Max may be doing that through his memories — both the real and the imagined."

It turns out, the idea that my children didn't know my dad isn't the gut punch I thought. What all three of my sons remember most: My dad plunging into the pool with a "cannonball," alongside their dad and uncles, the four men creating a tidal wave that nearly emptied the pool. That event *is* historically accurate. The rest of their memories — fabricated or not — fit the mold of who my dad was. The sweetest part: I have Dad's signature crêpes to help them remember.