Want to Feel You're Living a Longer, Fuller Life? Neuroscience Says Making Denser Memories Is the Best Way to Slow the Passage of Time

The years seem to pass more quickly as we age. But they don't have to.

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Our house on the Eastern Shore has a quarter-mile walkway over the water that leads to a dock. Looking back, the first time we walked it -- when we were considering buying the house -- seemed to take forever. Shoreline, bay grasses, herons, egrets, crabs, oyster beds, barrier islands off in the distance -- there was so much to see. (Plus there was the curiosity factor: Who builds a dock that long?)

When I think back to walking out to the end of the dock yesterday, though, it seems like it took seconds.

Hold that thought.

Time seems to pass more quickly as we age, and for good reason. (Well, not for *good* reason -- how could time passing more quickly be good? -- but at least for scientific reasons.)

Research published in *Scientific Reports* suggests how you perceive the passage of time is related to the amount of new perceptual information you absorb. When you're young, so many things seem new, and your brain has more to process. That makes the passage of time feel longer; as you get older, relatively little seems new, which means your brain has less to process, and time seems to have sped up. In a similar way, a study published in *Neuroscience and Biobehavioral Reviews* found that once we reach our 20s, the release of dopamine as the result of experiencing new stimuli starts to drop, also causing time to seem like it passed more quickly.

Then there's the effect of dense memories. I remember a lot about that first walk on the dock because everything seemed so new. Yesterday? I saw, heard, and smelled the same things, but by now I've experienced them many times. They didn't recruit as many new areas of my brain, so my new memories aren't dense. They're thin.

As a result, when I look back, my sense of that time is compressed.

(Quick aside: That could be why most of us -- and by "most of us," I mean me -- suck at estimating how long certain activities will actually take. Ask me to estimate how many hours it will take me to install a mini-split, and I'll say four, even though, since something unexpected invariably comes up, it always takes five or six. My inability to predict correctly is partly due to a healthy dose of irrational optimism -- "this time everything will go perfectly" -- but also because I've done a number of installs, which means recent memories aren't dense, which means, when I think back, the work seems to have gone more quickly than it actually did.)

That's why many successful entrepreneurs grow bored once their companies are thriving; maintaining what you've built results in a greater proportion of thin to dense memories.

That first sale? You remember it forever. The 968th? Lost in the blur.

That's even true for remarkably successful entrepreneurs.

So how do we slow the passage of time? Here's step one, courtesy of Stanford neuroscientist David Eagleman (long, but worth it):

We all have the impression that a childhood summer seemed to last forever, but when you're older, the summers are here and then they're gone and years zip by ...

It's because the job of the brain is to build an internal model of the world out there. Your brain is locked in silence and darkness inside your skull, and all it is trying to do is understand the structures of the world so it can operate in it better. Whenever it encounters a surprise, it writes that down and it makes changes to your circuitry.

But as you go through life and your brain develops better models of the world, less and less carries much surprise. This is why you lay down fewer memories as you age. You've seen that situation before, you've met that personality before, you've done that job before. The memories you lay down are much thinner. They're more impoverished. But in contrast, when you're in your childhood, everything is new. And so the richness of your memories gives you the impression of increased duration.

When you are looking back at the end of a childhood summer, it seems to have lasted for such a long time because everything was new. But when you're looking back at the end of an adult summer, it seems to have

> disappeared rapidly because you haven't written much down in your memory.
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> So here is the take-home lesson. We have to seek novelty, because this is what lays down new memories in the brain.

Try new things. Do new things. Push yourself. Try to create more firsts, and more different experiences. Do that, and when you look back, time will seem to have passed more slowly, because your memories will be much denser. That will change your perception of what psychologists call retrospective timing.

Then leverage the power of what psychologists call prospective timing. Generally speaking, prospective timing is looking forward to predicting future outcomes, especially regarding time. (Like how long a mini-split install will take.) But planning and scheduling certain activities, which is also an aspect of prospective timing, can make time seem to go a little more slowly. Going on vacation in a month? Put the date on your calendar. Stick a note on the fridge. Looking forward will make the intervening days feel like they take longer -- and make the anticipation a little sweeter.

Then, when you're actually on vacation, abandon your normal routine. Do as many things differently as you possibly can. Spend the morning checking emails and responding to sales inquiries and all the other stuff you do

every other morning and your memories of those hours will be thin, not dense, and that time will feel like it flew by.

As Eagleman says, doing new things -- or just doing the simplest things a little differently, like taking a different route to work, or rearranging your office, or even just brushing your teeth with your non-dominant hand -- will "make you seem as though you are extending your time a bit because you're forcing your brain off its hamster wheel of doing things a particular way every day."

Since time is your most valuable resource, why wouldn't you want to make it seem to last as long as possible?