

You're Never **Too Old** To Become a **Beginner**

Learning a new skill as an adult is challenging—which is why it brings so many cognitive and emotional benefits.

By Tom Vanderbilt

ave we ever needed a fresher start than the one promised by 2021? As we head into a new year with all its hopes-new year, new you, newly recovered world—there is one thing from the outgoing annus horribilis we should carry forward and

even deepen: the spirit of the novice. The pandemic turned us all into beginners. Suddenly, the usual ways of doing things were no longer an option. Governments and businesses scrambled to develop new protocols, and we all struggled to reinvent the activities of everyday life. From queuing to Zoom to mask etiquette, we

Just as noteworthy is how many people, in the face of such disruption, decided that they wanted to learn new things. Online learning sites like Skillshare, Duolingo and Coursera saw extraordinary growth. Enrollments in online art and music classes spiked, while novice bakers flooded the helm while novice bakers flooded the help lines of the Vermont-based flour com-

pany King Arthur Baking. Even before "The Queen's Gambit," online chess lessons were flourishing. From gardening to camping to bicycling to sewing, people have been taking up new pursuits with abandon.

But cultivating new skills and habits is a chal-

lenge. Even as we commit to new activities, we struggle to shake off the little as seven days. stasis of familiar routines especially if we are older. I had this feeling a few years ago when I suddenly realized, shepherding my young daughter to any number of classes and lessons, from swimming to pi-ano, that I couldn't remember the last new skill I had learned. I had gently ossified into a finished being, coasting along on midcareer competence. So I decided to become a beginner in a number of things that I'd long

wanted to try to learn, from singing to surfing. Being a beginner is hard—it feels better to be good at something than to be bad. It's even harder for were faced with an unsettling societal learning curve.

adults. The phrase "adult beginner" published by Knopf on Jan.
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has an air of gentle pity. It implies learning something that you perhaps should have learned already.

Though the first steps can be difficult, it's worth the effort: Becoming a beginner is one of the most life-en-hancing things you can do.

A good starting point is to take up juggling. The innocuous little act of

Learning to

juggle starts to

alter

the brain

in as

throwing balls into the air has been found, in a number of neuroscience studies, to alter the brain. This "activation-dependent structural plasticity," as it's called, pops up in as irs cailed, pops up in as little as seven days. Juggling changes not only gray matter, the brain's processing centers, but also white matter, the networked connections that bind it all together.

"Learning a new skill re-"Learning a new skill re-

quires the neural tissue to function in a new way," says Tobias Schmidt-Wilcke, a neu-roscientist (and juggler) at Germany's University of Bo chum.
After that initial burst of activity,

the brain settles down. By the time you can do the skill without much thinking—when it becomes automatic—gray

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This essay is adapted from Mr. Vanderbilt's new book, "Beginners: The Joy and Transformative Power of Lifelong Learning," which will be published by Knopf on Jan. 5.

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The Rewards of Being a Beginner

Continued from the prior page

Continued from the prior page matter density declines. So you try a new juggling trick, and the process begins again. Interestingly, the changes in brain density happen for older people just as much as for younger people.

But there's a caweat: The older you are, the harder you're going that have to work. "As people age," Dr. Schmidt-Wilke says, 'they should don not less, but more to keep and maintain their abilities." There's a happut ywist, however: The more learning that older adults take on, the faster they seem to learn—the more they become like younger adults.

And learning a skill, even if you don't achieve mastery, has benefity a they beyond the skill itself. In a study of people aged 60 to 90 conducted by the Center for Vital Longevity at the University of Texas, subjects were split into two groups. One took classes in digital photography and quilting, the other simply met and socialized. The subjects who took classes in digital photography and quilting, the other simply met and socialized. The subjects who took classes in digital photography and quilting, the other simply met and socialized. The subjects who took classes in digital photography and quilting, the other simply met and socialized. The subjects who took classes and larger improvements in a variety of cognitive areas, ranging from episodic memory to processing speed.

Boosting your brain is hardly the

cessing speed.

Boosting your brain is hardly the sole reason to become a beginner. There's also the feeling of growth the sense that you've just become

> Learning doesn't have to be careerrelated to help in your career. When we expand ourselves through new activities. we are able to see more.

someone new, which you can't help excitedly telling other people about. As the old joke has it, how do you tell if someone's a triathlete? They

In the course of my own learning I met people for whom learning some new skill was instrumental to reclaiming their identity in the wake sonie new sair was intranenato vereiaming their identity in the wake of a dissolved marriage or redefining their life after a big settled. Adrian was singing to recover his speech faculties in the wake of a brain tumor; Steve was trying to juggle five balls to stay nimble in his 80s; Patricia had learned to swim, at first via You-Tube, in her 70s—and was now leaving others behind in open ocean junts.

This sense of self-expansion can apply to couples as well. Research pansion can apply to couples as well. Research undertake novel and challenging activities together

lenging activities togethe recapture some of the ini-tial exhilaration of when they first met, and the positive feelings they experience—from, say, taking a dance class—get transferred to the relationship itself.

There's also a feeling of growth in meeting new people who are like-minded in their desire to learn new things, in their willingness to appear foolish. In psychology, this is called "openness to experience." It so not of the so-called "Big Five" personality traits—along with extraversion, conscientiousness, neuroticism and agreeableness—that various psychological models was suggested define us. It's also come to be increasingly linked with longevity. The exact reasons are still unclear, but psychologists theorize that openness entatls a cognitive and behavioral flexibility that is useful in addressing the challenges of There's also a feeling of ful in addressing the challenges of

later life. Even experts in a field can benefit from maintaining what the Zen Bud from maintaining what the Zen Bud-hist monk Shurry's Buzuki called "beginner's mind"—the lack of pre-conceptions that novices typically exhibit. The potential benefits of this outlook can be seen in psychol-ogy's famous 'candle problem," in which subjects are asked to attach a candle to a wall using nothing more than a matchbook and a box of

For toddlers learning to walk and adults learning to swim, setbacks

tacks. People struggle to solve the problem because they think of the box merely as a container for the tacks, not realizing that it can be tacked to the wall and used as a shelf for the candle.

In an experiment pub-lished in the journal Cog-nition in 2000, however, ishied in the Journa Cognition in 2000, however,
one group did pretty well
on the candle problem:
five-year-olds. Why? Compared with older children
or adults, "Younger children have a wider criterion for what can count as
an object's function,"
wrote psychologists Tim
German and Margaret
Anne Defeyter. "They view
object function in terms
of any goals of its users,
rather than in terms of
one specific originally intended function."
We often associate
learning new skills with
career enhancement,
which is certainly a worthy goal. But skills don't

thy goal. But skills don't necessarily need to be career-related to help in your career. When we expand ourselves through new activities, we are able to see more. As David Epstein notes in his book "Range: Why Generalists Triumph in a Spe-cialized World," Nobel laureates, compared with other scientists, "are at least 22 times more likely

least 22 times more likely to partake as an anateur actor, dancer, magician or other type of performer."

Take, for instance, Claude Shannon, the brilliant MIT mathematican and polymath who helped to invent the digital world in which we live today. He plunged himself into all kinds of pursuits, routinely becoming a beginner, an openness that informed his work. As Jimmy Soni and Rob Goodnam write in "A Mind at Play" their biography of Shannon, "Time and again, he pursued projects that might have caused others" embarrassment, engaged questions that seemed trivial or minor, then managed to wring breakthroughs out of them." One of his favorite lei-

out of them. One of the sure activities? Juggling.

How, then, to prepare ourselves to become better beginners?

We can draw crucial guidance



from a group of research subjects who are beginners in the fullest sense of the word: infants learning to walk. At New York University's Infant Action Lab, headed by the psychologist Karen Adolph, researchers have learned a great deal about how infants get around. Each hour, the average toddler (from 12 to 19 months old) travels the length of about eight football fields, taking, some 2,400 steps. Some 2,6 million steps later, they'll become proficent walkers.

But along the way, they will fall—

maybe even catastrophic—for adult beginners trying to learn a skill. If habies just kept crawling, they wouldn't fall so much. But walking, frings all sorts of benefits. "Winfants are faster in the first week of hori-ble walking than they are in their 21 weeks of crawling," says br. Adolph. That's not all. It frees up their hands, It allows them to see more, hands. It allows them to see more, since crawling infants look mostly at the ground. It helps them gain "so-cial agency" and gives them more control over their environment. Strikingly, babies don't seem to

control over their environment.

Strikingly, babies don't seem to
transfer anything they learned from
crawling into walking. In a series of
experiments at the lab, infants were
exposed to a variety of novel situations, like an opportunity to descend
a steep slope. A striking pattern was
observed. Infants looking at a daunting 36-degree decline would, as
knowing crawlers, avoid it or approach it cautiously. New walkers,
however, would blithely plunge
down slopes or toddle off cliffsusually into the rescuing arms of a
trained experimenter.

Wouldn't it make sense for babies
to preserve the knowledge of these
risks? Not necessarily, says Dr.
Adolph. Babies grow at astonishing
speeds--whatever worked for the
crawling infant is not necessarily going to work for the walking infant.
Most important, she says: "You
don't want the baby to learn to stop
trying," As the ultimate beginners,
infants need a kind of learningtearning how to learn—test is flevilearning how to learn—test is flevi-

infants need a kind of learning learning how to learn—that is flexible, that is powered by exploration, that can allow them to adapt to novel situations, that accepts plenti-

ful errors, often without any seeming cause. For adults, the lessons are clear. One is that skills take time. Infants spend roughly a third of their day for six solid months practicing walking (and don't truly perfect it until several years later). So don't worry if you're still

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that progress is often not linear. Learning happens in fits and starts. Stages are only rough bench-marks. Development does not always march uni-formly in one direction.

formly in one direction.
Infants may learn to walk,
then briefly revert to
crawling. Progress is often
U-shaped, meaning that
kids (and adults) often get
ter. Aud rese before they get better. Adolph, infants seem to learn best "when operating near the limits of their
current skill level." In other words:
Always be at the edge of what you
can't currently do.
None of this is easy, gu't en ole learning, Infants experience fall after fall, until, slowly,
their brain and body figure out how,

their brain and body figure out how, in all sorts of situations, to stop fall-

Infants live what might be called the beginner's creed: If you don't learn to fail, you'll fail to learn.

ing. Infants live what might be called the beginner's creed: If you don't learn to fail, you'll fail to learn. So let "beginner' be your watchword for 2021. But watch for watchear that you're going to master the piano or paint like Picasso. You may dwell longer than you like in the beginner stages, even growing resential of this thing that is supposed to change your life. Resolve instead simply to try to learn new skills simply to try to learn new skills— the more the better—and, even more important, to give yourself permission to be bad at them. Let the pro-cess of learning itself be your goal.



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