It's Never Too Late to Start a Brilliant Career

Our obsession with early achievement shortchanges people of all ages. Research shows that our brains keep developing deep into adulthood and so do our capabilities.


In 1980, I was 25 and hadn’t yet bloomed. This hit home one night while I was working as a security guard in San Jose, Calif. Just after dark, as I started my perimeter patrol of a fenced rent-a-truck yard, I heard barking from the lumber yard next door. I swung my flashlight around and came face-to-face with my counterpart on the other side of the fence: a guard dog. The implication was sobering. I was a Stanford graduate, and my professional peer was a Rottweiler.

In a few months, Steve Jobs, also 25 at the time, would take Apple public, change the computer industry and become fabulously rich. I, on the other hand, was poor and stuck. My story is embarrassing, but is it that unusual?

Today we are madly obsessed with early achievement. We celebrate those who explode out of the gates, who scorch the SAT, get straight A’s in AP courses, win a spot at Harvard or Stanford, get a first job at Google or Goldman Sachs, and headline those ubiquitous 30-under-30 lists. In 2014, Time magazine started an annual list of “Most Influential Teens.” Yes, teens.

But precocious achievement is the exception, not the norm. The fact is, we mature and develop at different rates. All of us will have multiple cognitive peaks throughout our lives, and the talents and passions that we have to offer can emerge across a range of personal circumstances, not just in formal educational settings focused on a few narrow criteria of achievement. Late bloomers are everywhere once you know to look for them.

Shifting our attention in this way can spare us much of the unhappiness generated by our worship of youthful success. How we evaluate young people places needless emotional burdens on families and has helped to spur an epidemic of anxiety and depression among teens and young adults. The effort to forge young people into wunderkinds is making them fragile and filling them with self-doubt: It suggests that if you haven’t become famous, reinvented an industry or banked seven figures while you’re still in your 20s, you’ve somehow off track. But the basic premise is wrong: Early blooming is not a requirement for lifelong accomplishment and fulfillment.

Recent research suggests that we need to modify our understanding of how people mature from adolescence to adulthood. Between the ages of 18 and 25, most people are still living in a volatile post-adolescence. In both adolescent and young adult brains, the prefrontal cortex—the processing center of our frontal lobe—is the last part to fully develop, and it is responsible for complex functions such as planning and organizing, problem solving, memory, attention and inhibition.

In the human adult, the prefrontal cortex is massive compared with that of other species. It constitutes nearly one-third of the neocortex, the part of the brain involved in higher-order brain functions. By comparison, the prefrontal cortex makes up just 17% of the neocortex in a chimpanzee, 13% in a dog and 4% in a cat.

Many critical changes in our prefrontal cortex occur in our early-to-mid 20s. Myelination, for instance, is a process in which nerve fibers are more extensively covered with myelin, a substance that insulates them so that nerve signals can be more efficiently transmitted. Extensive synaptic pruning also occurs during this period. This may sound like a bad thing, but it’s not. It pares back the web of possible connections resulting from explosive nerve growth, allowing the remaining ones to transmit signals more effectively. At the same time, the prefrontal cortex develops the ability to better communicate with other parts of the brain, especially those associated with emotions and impulses, so that all areas of the brain can be included in complex processes such as planning and problem solving.
The term that psychologists use for this sort of neurological maturity is executive function. Executive function has nothing to do with IQ, potential or talent. It is simply the ability to see ahead and plan effectively, to connect actions to possible consequences, to see the probabilities of risk and reward.

As a young man, this is exactly what I lacked, which goes a long way toward explaining my immaturity and inability to hold a serious job. Jeffrey Arnett, a psychology professor at Clark University, calls the phase from 18 to 30 years old “emerging adulthood,” which he says needs to be recognized as a distinct stage of life, partly spurred by social and economic changes. The vast majority of us will be better served not by high SAT scores or STEM degrees but by discovering and embracing our true talents.

Nor is the emergence of mature executive function the end of our cognitive journey. In a 2015 study published in the journal Psychological Science, neuroscientists Laura Germine and Joshua Hartshorne measured the abilities of nearly 50,000 adult subjects of various ages on online cognitive tests. “At any given age, you’re getting better at some things, you’re getting worse at some other things, and you’re at a plateau at some other things,” said Dr. Hartshorne in summing up their conclusions. “There’s probably not one age at which you’re peak on most things, much less all of them.” In their study, the speed of information processing appeared to peak early, around 18 or 19. Short-term memory continued to improve until around 25 and then leveled off for another decade. The ability to evaluate complex patterns, including other people’s emotional states, on the other hand, peaked much later, when participants were in their 40s or 50s.

These findings validate what previous cognitive research has revealed: Each of us has two types of intelligence, known as fluid and crystallized. Fluid intelligence is our capacity to reason and solve novel problems, independent of knowledge from the past, and it peaks earlier in life. Crystallized intelligence is the ability to use skills, knowledge and experience; it shows rising levels of performance well into middle age and beyond. According to Georgia Tech psychology professor Phillip Ackerman, the best way for older adults to compensate for declines in youthful “fluid” intelligence is to select jobs and goals that optimize their “crystallized” knowledge and skills.

For instance, while the field of software coding favors the young and fluid, managing projects and the business can shift the needed skills to an older profile. Consider the career of Diane Greene, who spent her 20s and early 30s organizing windsurfing races and working for Coleman, the camping equipment company. At 33, she earned a master’s degree in computer science and pronounced herself ready for a “grown-up’s job.” In 1998, at age 43—late by Silicon Valley’s youth-centric standards—Ms. Greene cofounded the software company VMware and then led it for a decade. In 2015, Google acquired another company she started and, at age 60, put her in charge of one of its most important businesses, Google Cloud (a position from which she stepped down in January).

What about creativity and innovation? That realm must belong to the young, with their exuberance and fresh ideas, right? Not necessarily. For instance, the average age of scientists when they are doing work that eventually leads to a Nobel Prize is 39, according to a 2008 Northwestern University study. The average age of U.S. patent applicants is 47.

Our creative yield increases with age, says Elkhonon Goldberg, a clinical professor of neurology at New York University. Dr. Goldberg thinks that the brain’s right and left hemispheres are connected by a “salience network” that helps us to evaluate novel perceptions from the right side by comparing them to the stored images and patterns on our left side. Thus a child will have greater novel perceptions than a middle-aged adult but will lack the context to turn them into creative insights.

Take Ken Fisher, who today runs Fisher Investments, a stock fund with $100 billion under management and 50,000 customers. After graduating from high school, he flunked out of a junior college. “I had no particular direction,” he said. He went back to school to study forestry, hoping for a career outdoors, but switched to economics and got his degree in 1972. In his early 20s, he hung out his shingle as a financial adviser, following his father’s career. To bring in extra money, he took construction jobs, and he played slide guitar in a bar. But he also read and read: “Books about management and business—and maybe thirty trade magazines a month for years,” he says. By the
time he reached his 30s, an idea had gelled that would make him his fortune. As he puts it, during that period of reflection, “I developed a theory about valuing companies that was a bit unconventional.”

Tales of late bloomers are found in every walk of life and often feature an under-appreciated talent that emerged more slowly than the standard expectations. As a high school athlete in San Mateo, Calif., the New England Patriots’ legendary quarterback Tom Brady, winner of six Super Bowls, wasn’t on the radar of most college recruiters. Though he made the team at highly rated Michigan, he had to compete to become the starting quarterback in both his junior and senior years. He was only the 199th player selected in the NFL draft in 2000. A year later, when the Patriots’ starting quarterback was sidelined by injury, Mr. Brady, by then 24, finally got his big chance—and emerged over the course of that season as the spectacular success that he’s been ever since.

How many of us were overlooked in our school years, or dismissed early in our careers, or are dismissed even now? What gifts and passions might we possess that haven’t yet been discovered but that could give us wings to fly? Record-setting astronaut Scott Kelly, who has spent more than five hundred days in space, the most of any American, said he was so bored in high school that “I finished in the half of the class that made the top half possible.” Billionaire Diane Hendricks, daughter of dairy farmers, sold houses in Wisconsin, married, divorced, then 10 years later met her next husband, Ken, a roofer. The two maxed out their credit cards to start ABC Supply, a source for windows, gutters, and roofing material. Today Ms. Hendricks presides over a company worth $5 billion.

International star Andrea Bocelli began singing opera when he was 34. Martha Stewart was 35 when she started her catering business in a friend’s basement, and 42 when her first book of recipes was published. Toni Morrison published her first novel, “The Bluest Eye,” at 39 and won a Pulitzer Prize for “Beloved” at 56 and the Nobel Prize in Literature five years later. J.K. Rowling was a divorced mother on public assistance before she created Harry Potter at age 35. Tom Siebel founded his first big tech company, Siebel Systems, at 41, and his second, C3, at 57. Famous movie villain Alan Rickman owned a graphic design studio for years before he got his first taste of fame at 42 for his role as Hans Gruber in “Die Hard.”

“There are no second acts in American lives,” wrongly observed “The Great Gatsby” author F. Scott Fitzgerald. But Fitzgerald was an early blooming snob: He attended Princeton and was already a famous literary success in his mid-20s. But that was his peak. By his 30s, Fitzgerald was spiraling downward. He must have met all kinds of late bloomers and second acts who were on their way up. He died a bitter man at 44, the same age that Raymond Chandler began to write detective stories. Chandler was 51 in 1939, the year his first book, “The Big Sleep,” was published.

For me, everything changed in my late 20s. At 26, my brain woke up—it certainly felt like that—and I managed to win a job as a technical writer at a research institute. At 29, I got married. At 34, with no background in journalism, I cofounded Silicon Valley’s first business magazine; its design was based on the back issues of magazines I spent my college years goofing off by reading (I like to say that I majored in Sports Illustrated). At 38, Steve Forbes hired me to launch a technology magazine. At 44, I became the publisher of Forbes. Like me, most late bloomers will discover that they have greater opportunities to succeed on alternative paths, far from the madness and pressure of early achievement. Today’s obsessive drive for early achievement—and the taint of failure for those who do not attain it—has squandered our national talent and stunted our creativity.

All of us know someone, care about someone or love someone who seems stuck in life. The critical thing to remember is that we cannot give up on ourselves or others, even—and especially—if society has made it harder to catch up. Human life spans are lengthening. Most people recently born will live into the 22nd century. The vast majority of us will be better served not by high SAT scores or STEM degrees but by discovering and embracing our true talents. A healthy society needs all of its people to recognize that they can bloom and re-bloom, grow and succeed throughout their lives.

This essay is adapted from Mr. Karlgaard’s new book, “Late Bloomers: The Power of Patience in a World Obsessed with Early Achievement” (Crown Currency).