



"A sparkling book that
illuminates and inspires."

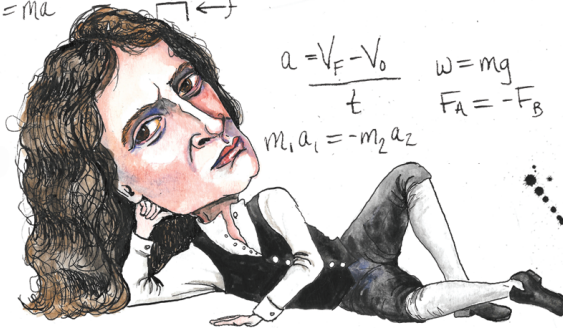
—Jon Meacham



$$F_{\text{net}} = ma$$



a ·



$$a = \frac{v_f - v_0}{t}$$

$$w = mg$$

$$F_A = -F_B$$

$$m_1 a_1 = -m_2 a_2$$



**How Genius Ignites,
From Child Prodigies
to Late Bloomers**

Spark



Claudia Kalb

New York Times best-selling author of *Andy Warhol Was a Hoarder*

Spark

**How Genius Ignites, From Child
Prodigies to Late Bloomers**

Claudia Kalb



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To my grandparents,
Bella, Max, Sue, and Sam,
and to those who came before them.
And to the prodigies, midlifers,
and late bloomers in all of us.

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Introduction

When I was child, I spent a lot of time wondering when I would know what I wanted to be. I've loved to write for as long as I can remember, and I spent many afternoons skimming through the pages of my parents' *New Yorker* magazines before I could make sense of the stories. Words fluttered through my mind like confetti at a ticker-tape parade.

Still, my path to becoming a writer was circuitous, and I have long been fascinated by the journeys of others. What role do our personality traits play in the livelihoods we pursue? Are we born with talent or lured by passion? How do we discover the spark that fuels our souls? And how do we know when we've found it?

These questions, which have stoked the minds of philosophers and psychologists for centuries, inspired me to explore the trajectories of 13 iconic figures who left colossal footprints in a variety of fields—from art and music to medicine, business, and politics. In my research, I became especially intrigued by the time line of discovery, which shapes the arc of this narrative. What propels some individuals to reach extraordinary creative heights in the earliest years of life while others uncover their destiny decades later?

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The chapters in this book, best read sequentially, are organized not by birth order, but by the age at which genius ignites. Child prodigies Pablo Picasso, Shirley Temple, and Yo-Yo Ma, whose talents earned them acclaim in early childhood, launch the book, followed by Bill Gates, Isaac Newton, and entrepreneur Sara Blakely, whose moments of inspiration span the ages between 13 and 27. Julia Child, Maya Angelou, and Alexander Fleming constitute what I call midlifers—people whose momentous experiences transpired in their 30s and 40s. The chapters close with late bloomers Eleanor Roosevelt, Peter Mark Roget of *Roget's Thesaurus* fame, and the painter Anna Mary Robertson Moses, also known as Grandma Moses, all of whom initiated their most enduring work in the final decades of their lives.

I studied these individuals through a journalistic lens, conducting interviews and reporting on-site where possible, and bolstered my knowledge by delving into letters, memoirs, and biographies. At Woolthorpe Manor, north of London, I stood in Isaac Newton's bedroom, with its limestone walls, and took in the view of his famed apple tree out the window. I went inside Alexander Fleming's lab, where he discovered penicillin, and took Eleanor Roosevelt's favorite walk through the woods at Val-Kill, her home in upstate New York. I listened to Yo-Yo Ma perform Bach's Cello Suites live at the Washington National Cathedral and at Tanglewood, and heard Sara Blakely speak to a group of entrepreneurs about her journey to founding Spanx, her multimillion-dollar clothing and shapewear company. Where possible, I talked to family members of the historical individuals profiled in these pages. I drew on a conversation I had with Ma for a magazine feature, and I interviewed Gates and Blakely.

From the cradles of civilization to the 21st century—Aristotle and Sappho to Jane Goodall, Alvin Ailey, and Isabel Allende—great minds have changed the way we understand ourselves and the world we inhabit. Their momentous achievements have fostered energetic

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debates about the inner workings of the brain and human behavior, and about how we judge ingenuity in art, music, literature, science, medicine, and technology. What are the origins of genius? What makes a genius? What *is* a genius?

This is inherently complicated terrain. Entire books, many of which informed my research, have attempted to explain human virtuosity. In these pages, I interpret the term with some degree of latitude. In certain cases, an individual's contributions are so immense and enduring that no other term seems sufficient. In others, the word acts more as an adjective describing a breakthrough or piece of creative work: The innovation itself is genius and the person who came up with it deserves ample recognition because of it.

Philosophers have long pondered the origins of genius. Plato described inspiration as a gift from the gods and likened the poet and prophet to an “empty vessel filled with divine infusion,” says historian Darrin McMahon, author of *Divine Fury: A History of Genius*. Aristotelian thinkers, by contrast, attributed brilliance at least in part to biology, theorizing that an overabundance of black bile—one of the four bodily humors proposed by Hippocrates—endowed eminent souls with superior powers. Phrenologists attempted to find genius in bumps on the head; craniometrists collected skulls, which they probed, measured, and weighed.

Child prodigies, whose talent appears early in life, raise an eternally debated question: Is genius born or made? In the 19th century, the polymath Francis Galton proposed that the trait was passed down through family bloodlines; he mapped the lineages of an array of European leaders in disparate fields—from Mozart and Haydn to Byron, Chaucer, Titus, and Napoleon—to make his case. In 1869, Galton published his findings in *Hereditary Genius*, a book that launched the “nature versus nurture” debate and also spurred the misbegotten field of eugenics.

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A century later, the focus shifted again—this time from pedigree to sweat equity. In a consequential 1993 study, psychologist Anders Ericsson and colleagues reported that the difference between elite and amateur musicians correlated strongly with how much time they spent in intensive study, or what Ericsson called “deliberate practice.” These findings spawned the popularized notion that 10,000 hours of serious practice can lead to expert performance—a formula that vastly oversimplified Ericsson’s research but was nonetheless seized upon by self-help gurus promising greatness in anyone determined enough to seek it. The reality almost certainly lies in between: Early ability engenders enthusiasm and drive, which leads to dedication and a desire to excel—a combination of nature and nurture.

No one has discovered a single source of genius, and such a thing will almost certainly never be found. But genius captivates us because of the vast potential it reveals. How can we, biological organisms comprised of 37 trillion cells, map a pathway to the moon, compose symphonies, solve mathematical quandaries, write poetry, and design new wireless technologies, one more mind-boggling than the next?

The subject of genius does not define the individuals in these pages. Instead, I use it as a framework to explore their lives through its core features: intelligence, creativity, perseverance, and luck. Although the 13 figures featured here differ in numerous ways—the eras in which they were born, the privileges and traumas they endured, the livelihoods they pursued—they share some combination of these characteristics, which have fostered their achievements and serve as common threads tying the first page to the last.



Intelligence has long been measured by a standardized IQ test, which evaluates a person’s ability to perform challenging cognitive tasks—