

## Genius The Life And Science Of Richard Feynman James Gleick

A prismatic look at the meeting of Marie Curie and Albert Einstein and the impact these two pillars of science had on the world of physics, which was in turmoil. In 1911, some of the greatest minds in science convened at the First Solvay Conference in Physics, a meeting like no other. Almost half of the attendees had won or would go on to win the Nobel Prize. Over the course of those few days, these minds began to realize that classical physics was about to give way to quantum theory, a seismic shift in our history and how we understand not just our world, but the universe. At the center of this meeting were Marie Curie and a young Albert Einstein. In the years preceding, Curie had faced the death of her husband and soul mate, Pierre. She was on the cusp of being awarded her second Nobel Prize, but scandal erupted all around her when the French press revealed that she was having an affair with a fellow scientist, Paul Langevin. The subject of vicious misogynist and xenophobic attacks in the French press, Curie found herself in a storm that threatened her scientific legacy. Albert Einstein proved an supporter in her travails. They had an instant connection at Solvay. He was young and already showing flourishes of his enormous genius. Curie had been responsible for one of the greatest discoveries in modern science (radioactivity) but still faced resistance and scorn. Einstein recognized this grave injustice, and their mutual admiration and respect, borne out of this, their first meeting, would go on to serve them in their paths forward to making history. Curie and Einstein come alive as the complex people they were in the pages of *The Soul of Genius*. Utilizing never before seen correspondance and notes, Jeffrey Orens reveals the human side of these brilliant scientists, one who pushed boundaries and demanded equality in a man's world, no matter the cost, and the other, who was destined to become synonymous with genius.

'A monumental achievement - one of the great scientific biographies.' Michael Frayn *The Strangest Man* is the Costa Biography Award-winning account of Paul Dirac, the famous physicist sometimes called the British Einstein. He was one of the leading pioneers of the greatest revolution in twentieth-century science: quantum mechanics. The youngest theoretician ever to win the Nobel Prize for Physics, he was also pathologically reticent, strangely literal-minded and legendarily unable to communicate or empathize. Through his greatest period of productivity, his postcards home contained only remarks about the weather. Based on a previously undiscovered archive of family papers, Graham Farmelo celebrates Dirac's massive scientific achievement while drawing a compassionate portrait of his life and work. Farmelo shows a man who, while hopelessly socially inept, could manage to love and sustain close friendship. *The Strangest Man* is an extraordinary and moving human story, as well as a study of one of the most exciting times in scientific history. 'A wonderful book . . . Moving, sometimes comic, sometimes infinitely sad, and goes to the roots of what we mean by truth in science.' Lord Waldegrave, *Daily Telegraph*

Birds are astonishingly intelligent creatures. In fact, according to revolutionary new research, some birds rival primates and even humans in their remarkable forms of intelligence. Like humans, many birds have enormous brains relative to their size. Although small, bird brains are packed with neurons that allow them to punch well above their weight. In *The Genius of Birds*, acclaimed author Jennifer Ackerman explores the newly discovered brilliance of birds and how it came about. As she travels around the world to the most cutting-edge frontiers of research - the distant laboratories of Barbados and New Caledonia, the great tit communities of the United Kingdom and the bowerbird habitats of Australia, the ravaged mid-Atlantic coast after Hurricane Sandy and the warming mountains of central Virginia and the western states - Ackerman not only tells the story of the recently uncovered genius of birds but also delves deeply into the latest findings about the bird brain itself that are revolutionizing our view of what it means to be intelligent. Consider, as Ackerman does, the Clark's nutcracker, a bird that can hide as many as 30,000 seeds over dozens of square miles and remember where it put them several months later; the mockingbirds and thrashers, species that can store 200 to 2,000 different songs in a brain a thousand times smaller than ours; the well-known pigeon, which knows where it's going, even thousands of miles from familiar territory; and the New Caledonian crow, an impressive bird that makes its own tools. But beyond highlighting how birds use their unique genius in technical ways, Ackerman points out the impressive social smarts of birds. They deceive and manipulate. They eavesdrop. They display a strong sense of fairness. They give gifts. They play keep-away and tug-of-war. They tease. They share. They cultivate social networks. They vie for status. They kiss to console one another. They teach their young. They blackmail their parents. They alert one another to danger. They summon witnesses to the death of a peer. They may even grieve. This elegant scientific investigation and travelogue weaves personal anecdotes with fascinating science. Ackerman delivers an extraordinary story that will both give readers a new appreciation for the exceptional talents of birds and let them discover what birds can reveal about our changing world.

The never-before-told account of the intersection of some of the most insightful minds of the 20th century, and a fascinating look at how war, resistance, and friendship can catalyze genius. In the spring of 1940, the aspiring but unknown writer Albert Camus and budding scientist Jacques Monod were quietly pursuing ordinary, separate lives in Paris. After the German invasion and occupation of France, each joined the Resistance to help liberate the country from the Nazis and ascended to prominent, dangerous roles. After the war and through twists of circumstance, they became friends, and through their passionate determination and rare talent they emerged as leading voices of modern literature and biology, each receiving the Nobel Prize in their respective fields. Drawing upon a wealth of previously unpublished and unknown material gathered over several years of research, *Brave Genius* tells the story of how each man endured the most terrible episode of the twentieth century and then blossomed into extraordinarily creative and engaged individuals. It is a story of the transformation of ordinary lives into exceptional lives by extraordinary events--of courage in the face of overwhelming adversity, the flowering of creative genius, deep friendship, and of profound concern for and insight into the human condition.

From the Sunday Times bestselling author of *The Man Who Couldn't Stop*. 'Witty, sharp and enlightening . . . This book will make you smarter' Adam Rutherford. What if you have more intelligence than you realize? What if there is a genius inside you, just waiting to be released? And what if the route to better brain power is not hard work or thousands of hours of practice but to simply swallow a pill? In *The Genius Within*, bestselling author David Adam explores the groundbreaking neuroscience of cognitive enhancement that is changing the way the brain and the mind works – to make it better, sharper, more focused and, yes, more intelligent. Sharing his own experiments with revolutionary smart drugs and electrical brain stimulation, he delves into the sinister history of intelligence tests, meets savants and brain hackers and reveals how he boosted his own IQ to cheat his way into Mensa. Going to the heart of how we consider, measure and judge mental ability, *The Genius Within* asks difficult questions about the science that could rank and define us, and inevitably shape our future.

**LORD KELVIN.** In 1840, a precocious 16-year-old by the name of William Thomson spent his summer vacation studying an extraordinarily sophisticated mathematical controversy. His brilliant analysis inspired lavish praise and made the boy an instant intellectual celebrity. As a young scholar William dazzled a Victorian society enthralled with the seductive authority and powerful beauty of scientific discovery. At a time when no one really understood heat, light, electricity, or magnetism, Thomson found key connections between them, laying the groundwork for two of the cornerstones of 19th century science -- the theories of electromagnetism and thermodynamics. Charismatic, confident, and boyishly handsome, Thomson was not a scientist who labored quietly in a lab, plying his trade in monkish isolation. When scores of able tinkerers were flummoxed by their inability to adapt overland telegraphic cables to underwater, intercontinental use, Thomson took to the high seas with new equipment that was to change the face of modern communications. And as the world's navies were transitioning from wooden to iron ships, they looked to Thomson to devise a compass that would hold true even when surrounded by steel. Gaining fame and wealth through his inventive genius, Thomson was elevated to the peerage by Queen Victoria for his many achievements. He was the first scientist ever to be so honored. Indeed, his name survives in the designation of degrees Kelvin, the temperature scale that begins with absolute zero, the point at which atomic motion ceases and there is a complete absence of heat. Sir William Thomson, Lord Kelvin, was Great Britain's unrivaled scientific hero. But as the century drew to a close and Queen Victoria's reign ended, this legendary scientific mind began to weaken. He grudgingly gave way to others with a keener, more modern vision. But the great physicist did not go quietly. With a ready pulpit at his disposal, he publicly proclaimed his doubts over the existence of atoms. He refused to believe that radioactivity involved the transmutation of elements. And believing that the origin of life was a matter beyond the expertise of science and better left to theologians, he vehemently opposed the doctrines of evolution, repeatedly railing against Charles Darwin. Sadly, this pioneer of modern science spent his waning years arguing that the Earth and the Sun could not be more than 100 million years old. And although his early mathematical prowess had transformed our understanding of the forces of nature, he would never truly accept the revolutionary changes he had helped bring about, and it was others who took his ideas to their logical conclusion. In the end Thomson came to stand for all that was old and complacent in the world of 19th century science. Once a scientific force to be reckoned with, a leader to whom others eagerly looked for answers, his peers in the end left him behind -- and then meted out the ultimate punishment for not being able to keep step with them. For while they were content to bury him in Westminster Abbey alongside Isaac Newton, they used his death as an opportunity to write him out of the scientific record, effectively denying him his place in history. Kelvin's name soon faded from the headlines, his seminal ideas forgotten, his crucial contributions overshadowed. Destined to become the definitive biography of one of the most important figures in modern science, *Degrees Kelvin* unravels the mystery of a life composed of equal parts triumph and tragedy, hubris and humility, yielding a surprising and compelling portrait of a complex and enigmatic man.

This lively chronicle of the years 1847–1947—the century when the Jewish people changed how we see the world—is “[a] thrilling and tragic history...especially good on the ironies and chain-reaction intimacies that make a people and a past” (The Wall Street Journal). In a hundred-year period, a handful of men and women changed the world. Many of them are well known—Marx, Freud, Proust, Einstein, Kafka. Others have vanished from collective memory despite their enduring importance in our daily lives. Without Karl Landsteiner, for instance, there would be no blood transfusions or major surgery. Without Paul Ehrlich, no chemotherapy. Without Siegfried Marcus, no motor car. Without Rosalind Franklin, genetic science would look very different. Without Fritz Haber, there would not be enough food to sustain life on earth. What do these visionaries have in common? They all had Jewish origins. They all had a gift for thinking in wholly original, even earth-shattering ways. In 1847, the Jewish people made up less than 0.25% of the world's population, and yet they saw what others could not. How? Why? Norman Lebrecht has devoted half of his life to pondering and researching the mindset of the Jewish intellectuals, writers, scientists, and thinkers who turned the tides of history and shaped the world today as we know it. In *Genius & Anxiety*, Lebrecht begins with the Communist Manifesto in 1847 and ends in 1947, when Israel was founded. This robust, magnificent, beautifully designed volume is “an urgent and moving history” (The Spectator, UK) and a celebration of Jewish genius and contribution.

A portrait of the late Nobel Prize-winning physicist recounts his early enthusiasm for science, work on the atom bomb, and inquiry into the Challenger explosion

Leonardo da Vinci's scientific explorations were virtually unknown during his lifetime, despite their extraordinarily wide range. He studied the flight patterns of birds to create some of the first human flying machines; designed military weapons and defenses; studied optics, hydraulics, and the workings of the human circulatory system; and created designs for rebuilding Milan, employing principles still used by city planners today. Perhaps most importantly, Leonardo pioneered an empirical, systematic approach to the observation of nature—what is known today as the scientific method. Drawing on over 6,000 pages of Leonardo's surviving notebooks, acclaimed scientist and bestselling author Fritjof Capra reveals Leonardo's artistic approach to scientific knowledge

and his organic and ecological worldview. In this fascinating portrait of a thinker centuries ahead of his time, Leonardo singularly emerges as the unacknowledged "father of modern science." From the Trade Paperback edition.

Albert Einstein was a German mathematician and physicist who developed the special and general theories of relativity. In 1921, he won the Nobel Prize for physics for his explanation of the photoelectric effect. In the following decade, he immigrated to the U.S. after being targeted by the German Nazi Party. His work also had a major impact on the development of atomic energy. In his later years, Einstein focused on unified field theory. With his passion for inquiry, Einstein is generally considered the most influential physicist of the 20th century. "Life is like riding a bicycle. To keep your balance you must keep moving." - Albert Einstein This is the descriptive and concise biography of Albert Einstein.

The author of the New York Times bestselling Genius Foods is back with a lifestyle program for resetting your brain and body to its "factory settings," to help fight fatigue, anxiety, and depression and to optimize cognitive health for a longer and healthier life. The human body was honed under conditions that no longer exist. The modern world has changed dramatically since our days as hunter gatherers, and it has caused widespread anxiety, stress, and disease, leaving our brains in despair. But science proves that the body and brain can be healed with the intervention of lifestyle protocols that help us to regain our cognitive birthright. In The Genius Life, Lugavere expands the Genius Foods plan, which focused on nutrition and how it affects brain health, and expands it to encompass a full lifestyle protocol. We know now that the health of our brains—including our cognitive function and emotional wellness—depend on the health of our gut, endocrine, cardiac and nervous systems as there is a constant feedback loop between all systems. Drawing on globe-spanning research into circadian biology, psychology, dementia prevention, cognitive optimization, and exercise physiology, The Genius Life shows how to integrate healthy choices in all aspects of our daily routines: eating, exercising, sleeping, detoxing, and more to create a healthy foundation for optimal cognitive health and performance. Among Max's groundbreaking findings, you will discover: · A trick that gives you the equivalent of a "marathon" workout, in 10 minutes · How to get the benefits of an extra 1-2 servings of veggies daily without eating them · The hidden chemicals in your home that could be making you fat and sick · How to boost melatonin levels by up to 58% for deeper sleep without supplements The book features an achievable prescriptive 21-day plan for Genius Living that includes daily workouts, meal plans, and meal prep tips, and accompanied with helpful suggestions for healthy swaps and snacks

NOW A MAJOR SERIES 'GENIUS' ON NATIONAL GEOGRAPHIC, PRODUCED BY RON HOWARD AND STARRING GEOFFREY RUSH Einstein is the great icon of our age: the kindly refugee from oppression whose wild halo of hair, twinkling eyes, engaging humanity and extraordinary brilliance made his face a symbol and his name a synonym for genius. He was a rebel and nonconformist from boyhood days. His character, creativity and imagination were related, and they drove both his life and his science. In this marvellously clear and accessible narrative, Walter Isaacson explains how his mind worked and the mysteries of the universe that he discovered. Einstein's success came from questioning conventional wisdom and marvelling at mysteries that struck others as mundane. This led him to embrace a worldview based on respect for free spirits and free individuals. All of which helped make Einstein into a rebel but with a reverence for the harmony of nature, one with just the right blend of imagination and wisdom to transform our understanding of the universe. This new biography, the first since all of Einstein's papers have become available, is the fullest picture yet of one of the key figures of the twentieth century. This is the first full biography of Albert Einstein since all of his papers have become available -- a fully realised portrait of this extraordinary human being, and great genius. Praise for EINSTEIN by Walter Isaacson: - 'YOU REALLY MUST READ THIS.' Sunday Times 'As pithy as Einstein himself.' New Scientist '[A] brilliant biography, rich with newly available archival material.' Literary Review 'Beautifully written, it renders the physics understandable.' Sunday Telegraph 'Isaacson is excellent at explaining the science.' Daily Express

Richard Garwin was awarded the Presidential Medal of Freedom by President Barack Obama Called a "true genius" by Enrico Fermi, Richard Garwin has influenced modern life in far-reaching ways, yet he is hardly known outside the physics community. This is the first biography of one of America's great minds--a top physicist, a brilliant technological innovator, and a trusted advisor of presidents for sixty years. Among his many contributions to modern technology are innovations we now take for granted: air-traffic control systems, touch screens, color monitors, laser printers, GPS satellite navigation, and many other facets of everyday contemporary life. But certainly his most important work has been on behalf of nuclear disarmament. As a key member of the Los Alamos team that developed the hydrogen bomb (he created the final design), Garwin subsequently devoted much of his career to ensuring that nuclear weapons never again be used. He has spent hundreds of hours testifying before Congress, serving on government advisory committees, and doing work that is still classified, all the while working for IBM as a researcher. A genuine polymath, his ideas extend from propulsion systems for interplanetary flight to preventing flu epidemics. Never shy about offering his opinions, even to rigid government bureaucracies unwilling to change, Garwin continues to show leaders how to do the smart thing. The world is a more interesting and safer place because of his many accomplishments.

"The story of one of the most prolific, independent, and iconoclastic inventors of this century . . . fascinating."--Scientific American Nikola Tesla (1856-1943), credited as the inspiration for radio, robots, and even radar, has been called the patron saint of modern electricity. Based on original material and previously unavailable documents, this acclaimed book is the definitive biography of the man considered by many to be the founding father of modern electrical technology. Among Tesla's creations were the channeling of alternating current, fluorescent and neon lighting, wireless telegraphy, and the giant turbines that harnessed the power of Niagara Falls. This essential biography is illustrated with sixteen pages of photographs, including the July 20, 1931, Time magazine cover for an issue celebrating the inventor's career. "A deep and comprehensive biography of a great engineer of early electrical science--likely to become the definitive biography. Highly recommended."--American Association for the Advancement of Science "Seifer's vivid, revelatory, exhaustively researched biography rescues pioneer inventor Nikola Tesla from cult status and restores him to his rightful place as a principal architect of the modern age." --Publishers Weekly Starred Review "[Wizard] brings the many complex facets of [Tesla's] personal and technical life together in to a cohesive whole....I highly recommend this biography of a great technologist." --A.A. Mullin, U.S. Army Space and Strategic Defense Command, COMPUTING REVIEWS "[Along with A Beautiful Mind] one of the five best biographies written on the brilliantly disturbed."--WALL STREET JOURNAL "Wizard is a compelling tale presenting a teeming, vivid world of science, technology, culture and human lives."--NEW SCIENTIST "Marc Seifer is an excellent writer and scholar, who has produced a wonderfully readable and illuminating biography of one of the most intriguing men of this century...mak[ing] us understand not only the man, but also the times in which he lived...[A] masterpiece."--NELSON DEMILLE "The author presents much new material...[and] bases his book on a large number of archival and primary sources....Underneath the layers of hero worship, the core of Seifer's book is a serious piece of

scholarship." --Ronald Kline, SCIENTIFIC AMERICAN "Seifer has done a remarkable job going through all the Tesla manuscripts...ferret[ing] out hundreds of newspaper and magazine articles in which he traces out Tesla's public image [and] offers a reasonable reconstruction of Tesla's emotional world...Seifer has significantly advanced our understanding of Tesla."--Bernard Carlson, author of Tesla: Inventor of the Electrical Age, for ISIS "It is my opinion that Dr. Seifer leads the world as the most authoritative of all the Tesla researchers."--J.W. McGINNIS, President, International Tesla Society "Far and away the best job among Tesla biographies."--Jeffrey D. Kooistra, INFINITE ENERGY "Wizard is...utterly absorbing with chapters charting all stages of Tesla's life...Seifer treats his prodigious subject with sympathy and realism."--NEXUS "Wizard...presents a much more accurate...picture of Tesla... [It] is thorough, informative, entertaining and a valuable addition to electrotechnological history, past and future."--ELECTRONIC ENGINEERING TIMES "In modern times, Tesla may be enjoying a comeback thanks to books like Wizard."--THE NEW YORK TIMES

Albert Einstein is synonymous with genius. From his remarkable theory of relativity and the famous equation  $E=mc^2$  to his concept of a unified field theory, no one has contributed as much to science in the last 150 years. As well as showing how Einstein developed his theories, Einstein reveals the man behind the science, from his early years and experiments in Germany and his struggle to find work at the Swiss patent office to his marriages and children, his role in the development of the atomic bomb and his work for civil rights groups in the United States. Drawing on new research and personal documents belonging to Einstein, this book also includes reproductions of documents that reveal more than this scientist's groundbreaking theories.

A groundbreaking book that sheds new light on the vital importance of teams as the fundamental unit of organization and competition in the global economy. Teams—we depend on them for both our professional success and our personal happiness. But isn't it odd how little scrutiny we give them? The teams that make up our lives are created mostly by luck, happenstance, or circumstance—but rarely by design. In trivial matters—say, a bowling team, the leadership of a neighborhood group, or a holiday party committee—success by serendipity is already risky enough. But when it comes to actions by fast-moving start-ups, major corporations, nonprofit institutions, and governments, leaving things to chance can be downright dangerous. Offering vivid reports of the latest scientific research, compelling case studies, and great storytelling, Team Genius shows managers and executives that the planning, design, and management of great teams no longer have to be a black art. It explores solutions to essential questions that could spell the difference between success and obsolescence. Do you know how to reorganize your subpar teams to turn them into top performers? Can you identify which of the top-performing teams in your company are reaching the end of their life span? Do you have the courage to shut them down? Do you know how to create a replacement team that will be just as effective—without losing time or damaging morale? And, most important, are your teams the right size for the job? Throughout, Rich Karlgaard and Michael S. Malone share insights and real-life examples gleaned from their careers as journalists, analysts, investors, and globetrotting entrepreneurs, meeting successful teams and team leaders to reveal some "new truths": The right team size is usually one fewer person than what managers think they need. The greatest question facing good teams is not how to succeed, but how to die. Good "chemistry" often makes for the least effective teams. Cognitive diversity yields the highest performance gains—but only if you understand what it is. How to find the "bliss point" in team intimacy—and become three times more productive. How to identify destructive team members before they do harm. Why small teams are 40 percent more likely to create a successful breakthrough than a solo genius is. Why groups of 7 ( $\pm 2$ ), 150, and 1,500 are magic sizes for teams. Eye-opening, grounded, and essential, Team Genius is the next big idea to revolutionize business.

A definitive portrait of the scientific visionary who has influenced fields ranging from quantum physics and national defense to space and religion describes his relationships with leading world thinkers and documents his contributions to nuclear rocket technology, the Nuclear Test Ban Treaty and other world-changing endeavors. 40,000 first printing.

What happened to the European mind between 1605, when an audience watching Macbeth at the Globe might believe that regicide was such an aberration of the natural order that ghosts could burst from the ground, and 1649, when a large crowd, perhaps including some who had seen Macbeth forty-four years earlier, could stand and watch the execution of a king? Or consider the difference between a magus casting a star chart and the day in 1639, when Jonathan Horrock and William Crabtree watched the transit of Venus across the face of the sun from their attic, successfully testing its course against Kepler's Tables of Planetary Motion, in a classic case of confirming a scientific theory by empirical testing. In this turbulent period, science moved from the alchemy and astrology of John Dee to the painstaking observation and astronomy of Galileo, from the classicism of Aristotle, still favoured by the Church, to the evidence-based, collegiate investigation of Francis Bacon. And if the old ways still lingered and affected the new mind set – Descartes's dualism an attempt to square the new philosophy with religious belief; Newton, the man who understood gravity and the laws of motion, still fascinated to the end of his life by alchemy – by the end of that tumultuous century 'the greatest ever change in the mental outlook of humanity' had irrevocably taken place.

A biography of the flamboyant Nobel Prize-winning scientist describes how Feynman cracked safes, played the bongos, studied the behavior of Jell-O, and conducted experiments in seduction, all in the name of science. Reprint. 125,000 first printing. \$50,000 ad/promo. Tour.

Richard Feynman was the most brilliant and influential physicist of our time. Architect of quantum theories, enfant terrible of the atomic bomb project, caustic inquisitor on the space shuttle commission, ebullient bongo-player and storyteller - Feynman played a bewildering assortment of roles in the science of the post-war era. A brilliant interweaving of Richard Feynman's colourful life and a detailed and accessible account of his theories and experiments.

Celebrated for his brilliantly quirky insights into the physical world, Nobel laureate Richard Feynman also possessed an extraordinary talent for explaining difficult concepts to the general public. Here Feynman provides a classic and definitive introduction to QED (namely, quantum electrodynamics), that part of quantum field theory describing the interactions of light with charged particles. Using everyday language, spatial concepts, visualizations, and his renowned "Feynman diagrams" instead of advanced mathematics, Feynman clearly and humorously communicates both the substance and spirit of QED to the layperson. A. Zee's introduction places Feynman's book and his seminal contribution to QED in historical context and further highlights Feynman's uniquely appealing and illuminating style.

In this warm, insightful portrait of the Winner of the Nobel Prize for Physics in 1965, we see the wisdom, humour and curiosity of Richard Feynman through a series of conversations with his friend Ralph Leighton. Winner of the Nobel Prize for Physics in 1965, Richard Feynman was one of the world's greatest theoretical physicists, but he was also a man who fell, often jumped, into adventure. An artist, safecracker, practical joker and storyteller, Feynman's life was a series of combustible combinations made

possible by his unique mixture of high intelligence, unquenchable curiosity and eternal scepticism. Over a period of years, Feynman's conversations with his friend Ralph Leighton were first taped and then set down as they appear here, little changed from their spoken form, giving a wise, funny, passionate and totally honest self-portrait of one of the greatest men of our age. One hundred years on from his birth, and 30 since his death, Richard Feynman's discoveries in modern physics are still thoroughly relevant. Magnificently charismatic and fun-loving, he brought a sense of adventure to the study of science. His extraordinary career included war-time work on the atomic bomb at Los Alamos, a profoundly original theory of quantum mechanics, for which he won the Nobel prize, and major contributions to the sciences of gravity, nuclear physics and particle theory. Interweaving personal anecdotes and recollections with clear scientific narrative, acclaimed science writers John and Mary Gribbin reveal a fascinating man with an immense passion for life – a superb teacher, a wonderful showman and one of the greatest scientists of his generation.

The life and work of a scientist who spent his career crossing disciplinary boundaries—from experimental neurology to psychiatry to cybernetics to engineering. Warren S. McCulloch (1898–1969) adopted many identities in his scientific life—among them philosopher, poet, neurologist, neurophysiologist, neuropsychiatrist, collaborator, theorist, cybernetician, mentor, engineer. He was, writes Tara Abraham in this account of McCulloch's life and work, “an intellectual showman,” and performed this part throughout his career. While McCulloch claimed a common thread in his work was the problem of mind and its relationship to the brain, there was much more to him than that. In *Rebel Genius*, Abraham uses McCulloch's life as a window on a past scientific age, showing the complex transformations that took place in American brain and mind science in the twentieth century—particularly those surrounding the cybernetics movement. Abraham describes McCulloch's early work in neuropsychiatry, and his emerging identity as a neurophysiologist. She explores his transformative years at the Illinois Neuropsychiatric Institute and his work with Walter Pitts—often seen as the first iteration of “artificial intelligence” but here described as stemming from the new tradition of mathematical treatments of biological problems. Abraham argues that McCulloch's dual identities as neuropsychiatrist and cybernetician are inseparable. He used the authority he gained in traditional disciplinary roles as a basis for posing big questions about the brain and mind as a cybernetician. When McCulloch moved to the Research Laboratory of Electronics at MIT, new practices for studying the brain, grounded in mathematics, philosophy, and theoretical modeling, expanded the relevance and ramifications of his work. McCulloch's transdisciplinary legacies anticipated today's multidisciplinary field of cognitive science. *New York Times Bestseller Discover the critical link between your brain and the food you eat and change the way your brain ages*, in this cutting-edge, practical guide to eliminating brain fog, optimizing brain health, and achieving peak mental performance from media personality and leading voice in health Max Lugavere. After his mother was diagnosed with a mysterious form of dementia, Max Lugavere put his successful media career on hold to learn everything he could about brain health and performance. For the better half of a decade, he consumed the most up-to-date scientific research, talked to dozens of leading scientists and clinicians around the world, and visited the country's best neurology departments—all in the hopes of understanding his mother's condition. Now, in *Genius Foods*, Lugavere presents a comprehensive guide to brain optimization. He uncovers the stunning link between our dietary and lifestyle choices and our brain functions, revealing how the foods you eat directly affect your ability to focus, learn, remember, create, analyze new ideas, and maintain a balanced mood. Weaving together pioneering research on dementia prevention, cognitive optimization, and nutritional psychiatry, Lugavere distills groundbreaking science into actionable lifestyle changes. He shares invaluable insights into how to improve your brain power, including the nutrients that can boost your memory and improve mental clarity (and where to find them); the foods and tactics that can energize and rejuvenate your brain, no matter your age; a brain-boosting fat-loss method so powerful it has been called “biochemical liposuction”; and the foods that can improve your happiness, both now and for the long term. With *Genius Foods*, Lugavere offers a cutting-edge yet practical road map to eliminating brain fog and optimizing the brain's health and performance today—and decades into the future.

Draws on diaries, letters, and family interviews to discuss the lesser-known achievements and scientific insights of the Nobel Prize-winning scientist, documenting how she was compromised by the prejudices of a male-dominated society. In *Einstein in Love*, Dennis Overbye has written the first profile of the great scientist to focus exclusively on his early adulthood, when his major discoveries were made. It reveals Einstein to be very much a young man of his time—draft dodger, self-styled bohemian, poet, violinist, and cocky, charismatic genius who left personal and professional chaos in his wake. Drawing upon hundreds of unpublished letters and a decade of research, *Einstein in Love* is a penetrating portrait of the modern era's most influential thinker.

For use in schools and libraries only. Recounts the life of the scientist whose theories of relativity revolutionized the way we look at space and time.

#### EXHAUSTION DOESN'T HAVE TO BE YOUR NEW NORMAL

What is genius? Define it. Now think of scientists who embody the concept of genius. Does the name John Bardeen spring to mind? Indeed, have you ever heard of him? Like so much in modern life, immediate name recognition often rests on a cult of personality. We know Einstein, for example, not just for his tremendous contributions to science, but also because he was a character, who loved to mug for the camera. And our continuing fascination with Richard Feynman is not exclusively based on his body of work; it is in large measure tied to his flamboyant nature and offbeat sense of humor. These men, and their outsize personalities, have come to erroneously symbolize the true nature of genius and creativity. We picture them born brilliant, instantly larger than life. But is that an accurate picture of genius? What of others who are equal in stature to these icons of science, but whom history has awarded only a nod because they did not readily engage the public? Could a person qualify as a bona fide genius if he was a regular Joe? The answer may rest in the story of John Bardeen. John Bardeen was the first person to have been awarded two Nobel Prizes in the same field. He shared one with William Shockley and Walter Brattain for the invention of the transistor. But it was the charismatic Shockley who garnered all the attention, primarily for his Hollywood ways and notorious views on race and

intelligence. Bardeen's second Nobel Prize was awarded for the development of a theory of superconductivity, a feat that had eluded the best efforts of leading theorists -- including Albert Einstein, Neils Bohr, Werner Heisenberg, and Richard Feynman. Arguably, Bardeen's work changed the world in more ways than that of any other scientific genius of his time. Yet while every school child knows of Einstein, few people have heard of John Bardeen. Why is this the case? Perhaps because Bardeen differs radically from the popular stereotype of genius. He was a modest, mumbling Midwesterner, an ordinary person who worked hard and had a knack for physics and mathematics. He liked to picnic with his family, collaborate quietly with colleagues, or play a round of golf. None of that was newsworthy, so the media, and consequently the public, ignored him. John Bardeen simply fits a new profile of genius. Through an exploration of his science as well as his life, a fresh and thoroughly engaging portrait of genius and the nature of creativity emerges. This perspective will have readers looking anew at what it truly means to be a genius.

Winner of the 2017 JPBM Communications Award for Expository and Popular Books. "A delightful meta-biography--playful indeed--of a brilliant iconoclast." --James Gleick, author of *The Information* John Horton Conway is a singular mathematician with a lovely loopy brain. He is Archimedes, Mick Jagger, Salvador Dali, and Richard Feynman all rolled into one--he boasts a rock star's charisma, a slyly bent sense of humor, a polymath's promiscuous curiosity, and an insatiable compulsion to explain everything about the world to everyone in it. At Cambridge, Conway wrestled with "Monstrous Moonshine," discovered the aptly named surreal numbers, and invented the cult classic Game of Life--more than just a cool fad, Life demonstrates how simplicity generates complexity and provides an analogy for mathematics and the entire universe. As a "mathemagician" at Princeton, he used ropes, dice, pennies, coat hangers, even the occasional Slinky, as props to extend his winning imagination and share his many nerdish delights. He granted Roberts full access to his idiosyncrasies and intellect both, though not without the occasional grumble: "Oh hell," he'd say. "You're not going to put that in the book. Are you?!?"

Features information on eight different scientists and the struggles they had in convincing the world that their revolutionary ideas were correct, including such figures as Nikola Tesla, Charles Darwin, and Ignaz Semmelweis.

New York Times Bestseller: This life story of the quirky physicist is "a thorough and masterful portrait of one of the great minds of the century" (The New York Review of Books). Raised in Depression-era Rockaway Beach, physicist Richard Feynman was irreverent, eccentric, and childishly enthusiastic—a new kind of scientist in a field that was in its infancy. His quick mastery of quantum mechanics earned him a place at Los Alamos working on the Manhattan Project under J. Robert Oppenheimer, where the giddy young man held his own among the nation's greatest minds. There, Feynman turned theory into practice, culminating in the Trinity test, on July 16, 1945, when the Atomic Age was born. He was only twenty-seven. And he was just getting started. In this sweeping biography, James Gleick captures the forceful personality of a great man, integrating Feynman's work and life in a way that is accessible to laymen and fascinating for the scientists who follow in his footsteps.

Shows how the most creative minds in science used tools that can help us improve our creative abilities. Geniuses are not omnipotent. They are just very skilled at employing the creativity toolbox highlighted in this book, including finding the right question, observation, analogy, changing point of view, dissection, reorganization, the power of groups, and frame shifting. Robert Kanigel takes us into the heady world of a remarkable group of scientists working at the National Institutes of Health and the Johns Hopkins University: a dynasty of American researchers who for over forty years have made Nobel Prize- and Lasker Award-winning breakthroughs in biomedical science.

The author reveals the scientific basis of the genius within everyone all and details how to tap into one's infinite creative source. Isaac Newton is now universally celebrated as a genius of science, renowned for his innovatory work on gravity and optics. Yet Newton did not always enjoy such legendary status. His posthumous reputation has constantly changed and is riddled with contradictions. NEWTON investigates the different ways in which Newton's life and works have been interpreted at different times. It charts his transformation into a scientific genius, explaining the changing attitude of the scientific community towards Newton's ideas, from Berkeley to Einstein. It also explores the making of Newton the national hero, through the myths that surround him and the many artistic and literary descriptions of him. NEWTON tells the fascinating story of Newton's reputation, shedding light on the growth of science generally and on our changing attitude towards our intellectual heritage. 'Fara's brilliant book is not so much a biography as the story of a phenomenon . . . fascinating' Scotsman 'Fara does not debunk Newton as recent novelists have but delivers him more whole and greater than ever' Sunday Herald

We all make mistakes. Nobody is perfect. And that includes five of the greatest scientists in history -- Charles Darwin, William Thomson (Lord Kelvin), Linus Pauling, Fred Hoyle, Albert Einstein. But the mistakes that these great scientists made helped science to advance. Indeed, as Mario Livio explains in this fascinating book, science thrives on error; it advances when erroneous ideas are disproven. All five scientists were great geniuses and fascinating human beings. Their blunders were part of their genius and part of the scientific process. Livio brilliantly analyses their errors to show where they were wrong and right, but what makes his book so enjoyable to read is Livio's analysis of the psychology of these towering figures. Along the way the reader learns an enormous amount about the evolution of life on earth and in the universe, but from an unusual vantage point -- the mistakes of great scientists rather than the achievements that made them famous.

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