

This Is Your Brain On Music The Science Of A Human

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[The Power of Music](#) - Elena Mannes 2011-05-24

The award-winning creator of the acclaimed documentary "The Music Instinct: Science & Song," explores the power of music and its connection to the body, the brain, and the world of nature. Only recently has science sought in earnest to understand and explain this impact. One remarkable recent study, analyzing the cries of newborns, shows that infants' cries contain common musical intervals, and children tease each other in specific, singsong ways no matter where in the world they live. Physics experiments show that sound waves can physically change the structure of a material; musician and world-famous conductor Daniel Barenboim believes musical sound vibrations physically penetrate our bodies, shifting molecules as they do. The Power of Music follows visionary researchers and accomplished musicians to the crossroads of science and culture, to discover: how much of our musicality is learned and how much is innate? Can examining the biological foundations of music help scientists unravel the intricate web of human cognition and brain function? Why is music virtually universal across cultures and time—does it provide some evolutionary advantage? Can music make people healthier? Might music contain organizing principles of harmonic vibration that underlie the cosmos itself?

[Brain and Music](#) - Stefan Koelsch 2012-04-30

A comprehensive survey of the latest neuroscientific research into the effects of music on the brain Covers a variety of topics fundamental for music perception, including musical syntax, musical semantics, music and action, music and emotion Includes general introductory chapters to engage a broad readership, as well as a wealth of detailed research material for experts Offers the most empirical (and most systematic) work on the topics of neural correlates of musical syntax and musical semantics Integrates research from different domains (such as music, language, action and emotion both theoretically and empirically, to create a comprehensive theory of music psychology

[Rewire Your Brain](#) - John B. Arden 2010-03-22

How to rewire your brain to improve virtually every aspect of your life—based on the latest research in neuroscience and psychology on neuroplasticity and evidence-based practices Not long ago, it was thought that the brain you were born with was the brain you would die with, and that the brain cells you had at birth were the most you would ever possess. Your brain was thought to be “hardwired” to function in predetermined ways. It turns out that's not true. Your brain is not hardwired, it's "softwired" by experience. This book shows you how you can rewire parts of the brain to feel more positive about your life, remain calm during stressful times, and improve your social relationships. Written by a leader in the field of Brain-Based Therapy, it teaches you how to activate the parts of your brain that have been underactivated and calm down those areas that have been hyperactivated so that you feel positive about your life and remain calm during stressful times. You will also learn to improve your memory, boost your mood, have better relationships, and get a good night sleep. Reveals how cutting-edge developments in neuroscience, and evidence-based practices can be used to improve your everyday life Other titles by Dr. Arden include: Brain-Based Therapy-Adult, Brain-Based Therapy-Child, Improving Your Memory For Dummies and Heal Your Anxiety Workbook Dr. Arden is a leader in integrating the new developments in neuroscience with psychotherapy and Director of Training in Mental Health for Kaiser Permanente for the Northern California Region Explaining exciting new developments in

neuroscience and their applications to daily living, Rewire Your Brain will guide you through the process of changing your brain so you can change your life and be free of self-imposed limitations.

[Music, Language, and the Brain](#) - Aniruddh D. Patel 2010-06-01

In the first comprehensive study of the relationship between music and language from the standpoint of cognitive neuroscience, Aniruddh D. Patel challenges the widespread belief that music and language are processed independently. Since Plato's time, the relationship between music and language has attracted interest and debate from a wide range of thinkers. Recently, scientific research on this topic has been growing rapidly, as scholars from diverse disciplines, including linguistics, cognitive science, music cognition, and neuroscience are drawn to the music-language interface as one way to explore the extent to which different mental abilities are processed by separate brain mechanisms. Accordingly, the relevant data and theories have been spread across a range of disciplines. This volume provides the first synthesis, arguing that music and language share deep and critical connections, and that comparative research provides a powerful way to study the cognitive and neural mechanisms underlying these uniquely human abilities. Winner of the 2008 ASCAP Deems Taylor Award.

[The Brain That Changes Itself](#) - Norman Doidge 2007-03-15

“Fascinating. Doidge’s book is a remarkable and hopeful portrait of the endless adaptability of the human brain.”—Oliver Sacks, MD, author of *The Man Who Mistook His Wife for a Hat* What is neuroplasticity? Is it possible to change your brain? Norman Doidge’s inspiring guide to the new brain science explains all of this and more An astonishing new science called neuroplasticity is overthrowing the centuries-old notion that the human brain is immutable, and proving that it is, in fact, possible to change your brain. Psychoanalyst, Norman Doidge, M.D., traveled the country to meet both the brilliant scientists championing neuroplasticity, its healing powers, and the people whose lives they’ve transformed—people whose mental limitations, brain damage or brain trauma were seen as unalterable. We see a woman born with half a brain that rewired itself to work as a whole, blind people who learn to see, learning disorders cured, IQs raised, aging brains rejuvenated, stroke patients learning to speak, children with cerebral palsy learning to move with more grace, depression and anxiety disorders successfully treated, and lifelong character traits changed. Using these marvelous stories to probe mysteries of the body, emotion, love, sex, culture, and education, Dr. Doidge has written an immensely moving, inspiring book that will permanently alter the way we look at our brains, human nature, and human potential.

[Suggestible You](#) - Erik Vance 2016-11-08

National Geographic's riveting narrative explores the world of placebos, hypnosis, false memories, and neurology to reveal the groundbreaking science of our suggestible minds. Could the secrets to personal health lie within our own brains? Journalist Erik Vance explores the surprising ways our expectations and beliefs influence our bodily responses to pain, disease, and everyday events. Drawing on centuries of research and interviews with leading experts in the field, Vance takes us on a fascinating adventure from Harvard’s research labs to a witch doctor’s office in Catemaco, Mexico, to an alternative medicine school near Beijing (often called “China’s Hogwarts”). Vance’s firsthand dispatches will change the way you think—and feel. Expectations, beliefs, and self-deception can actively change our bodies and minds. Vance builds a case for our “internal pharmacy”—the very real chemical reactions our brains produce when we think we are experiencing

pain or healing, actual or perceived. Supporting this idea is centuries of placebo research in a range of forms, from sugar pills to shock waves; studies of alternative medicine techniques heralded and condemned in different parts of the world (think crystals and chakras); and most recently, major advances in brain mapping technology. Thanks to this technology, we're learning how we might leverage our suggestibility (or lack thereof) for personalized medicine, and Vance brings us to the front lines of such study.

The Musical Human - Michael Spitzer 2021-04-01

A RADIO 4 BOOK OF THE WEEK 'Full of delightful nuggets' Guardian online 'Entertaining, informative and philosophical ... An essential read' All About History 'Extraordinary range ... All the world and more is here' Evening Standard _____ 165 million years ago saw the birth of rhythm. 66 million years ago came the first melody. 40 thousand years ago Homo sapiens created the first musical instrument. Today music fills our lives. How we have created, performed and listened to this music throughout history has defined what our species is and how we understand who we are. Yet music is an overlooked part of our origin story. *The Musical Human* takes us on an exhilarating journey across the ages – from Bach to BTS and back – to explore the vibrant relationship between music and the human species. With insights from a wealth of disciplines, world-leading musicologist Michael Spitzer renders a global history of music on the widest possible canvas, looking at music in our everyday lives; music in world history; and music in evolution, from insects to apes, humans to AI. 'Michael Spitzer has pulled off the impossible: a Guns, Germs and Steel for music' Daniel Levitin 'A thrilling exploration of what music has meant and means to humankind' Ian Bostridge

Your Brain on Music - Laura Saunders 2017-08-05

Music education has been scientifically proven to have cognitive benefits; these benefits include: greater attention span, increased ability in geometrical skills, improved performance in mathematical problem solving and spatial tasks, heightened fluency in reading, and greater short-term and long-term memory. These benefits give music educators a platform from which to advocate for the retention and growth of their programs and to encourage music as a lifelong pursuit.

Rhythm, Music, and the Brain - Michael Thaut 2013-01-11

With the advent of modern cognitive neuroscience and new tools of studying the human brain "live," music as a highly complex, temporally ordered and rule-based sensory language quickly became a fascinating topic of study. The question of "how" music moves us, stimulates our thoughts, feelings, and kinesthetic sense, and how it can reach the human experience in profound ways is now measured with the advent of modern cognitive neuroscience. The goal of *Rhythm, Music and the Brain* is an attempt to bring the knowledge of the arts and the sciences and review our current state of study about the brain and music, specifically rhythm. The author provides a thorough examination of the current state of research, including the biomedical applications of neurological music therapy in sensorimotor speech and cognitive rehabilitation. This book will be of interest for the lay and professional reader in the sciences and arts as well as the professionals in the fields of neuroscientific research, medicine, and rehabilitation.

Human - Michael S. Gazzaniga 2009-10-13

What happened along the evolutionary trail that made humans so unique? In his accessible style, Michael Gazzaniga pinpoints the change that made us thinking, sentient humans different from our predecessors. He explores what makes human brains special, the importance of language and art in defining the human condition, the nature of human consciousness, and even artificial intelligence.

I Love My Brain - Leanne Boucher Gill 2021

"A funny, rhyming book about all of the cool things your brain does"--

This Is Your Brain On Music - Daniel J. Levitin 2011-07-01

Ever wondered why you can identify your favourite song from hearing only the first two notes? Or why you can't get that annoying jingle out of your head? Daniel Levitin's breathtaking - and wholly accessible - book, now published as an ebook, explains why. This is the first book to offer a comprehensive explanation of how humans experience music and to unravel

the mystery of our perennial love affair with it. Using musical examples from Bach to the Beatles, Levitin reveals the role of music in human evolution, shows how our musical preferences begin to form even before we are born and explains why music can offer such an emotional experience. Music is an obsession at the heart of human nature, even more fundamental to our species than language. In *This Is Your Brain On Music* Levitin offers nothing less than a new way to understand it, and its role in human life.

You Are the Music - Victoria Williamson 2014-03-06

'You are the music / While the music lasts' T.S. Eliot, *The Four Quartets* Do babies remember music from the womb? Can classical music increase your child's IQ? Is music good for productivity? Can it aid recovery from illness and injury? And what is going on in your brain when Ultravox's 'Vienna', Schoenberg's *Verklärte Nacht* or Dizzee Rascal's 'Bonkers' transports you back to teenage years? In a brilliant new work that will delight music lovers of every persuasion, music psychologist Victoria Williamson examines our relationship with music across the whole of a lifetime. Along the way she reveals the amazing ways in which music can physically reshape our brains, explores how 'smart music listening' can improve cognitive performance, and considers the perennial puzzle of what causes 'earworms'. Requiring no specialist musical or scientific knowledge, this upbeat, eye-opening book reveals as never before the extent of the universal language of music that lives deep inside us all.

The Sound Book: The Science of the Sonic Wonders of the World - Trevor Cox 2014-02-10

"A lucid and passionate case for a more mindful way of listening. . . . Anyone who has ever clapped, hollered or yodeled at an echo will delight in [Cox's] zestful curiosity."—New York Times Trevor Cox is on a hunt for the sonic wonders of the world. A renowned expert who engineers classrooms and concert halls, Cox has made a career of eradicating bizarre and unwanted sounds. But after an epiphany in the London sewers, Cox now revels in exotic noises—creaking glaciers, whispering galleries, stalactite organs, musical roads, humming dunes, seals that sound like alien angels, and a Mayan pyramid that chirps like a bird. With forays into archaeology, neuroscience, biology, and design, Cox explains how sound is made and altered by the environment, how our body reacts to peculiar noises, and how these mysterious wonders illuminate sound's surprising dynamics in everyday settings—from your bedroom to the opera house. *The Sound Book* encourages us to become better listeners in a world dominated by the visual and to open our ears to the glorious cacophony all around us.

Music in the Human Experience - Donald A. Hodges 2019-10-07

Music in the Human Experience: An Introduction to Music Psychology, Second Edition, is geared toward music students yet incorporates other disciplines to provide an explanation for why and how we make sense of music and respond to it—cognitively, physically, and emotionally. All human societies in every corner of the globe engage in music. Taken collectively, these musical experiences are widely varied and hugely complex affairs. How did human beings come to be musical creatures? How and why do our bodies respond to music? Why do people have emotional responses to music? *Music in the Human Experience* seeks to understand and explain these phenomena at the core of what it means to be a human being. New to this edition: Expanded references and examples of non-Western musical styles Updated literature on philosophical and spiritual issues Brief sections on tuning systems and the acoustics of musical instruments A section on creativity and improvisation in the discussion of musical performance New studies in musical genetics Greatly increased usage of explanatory figures

Behave - Robert M. Sapolsky 2017-05-02

Why do we do the things we do? Over a decade in the making, this game-changing book is Robert Sapolsky's genre-shattering attempt to answer that question as fully as perhaps only he could, looking at it from every angle. Sapolsky's storytelling concept is delightful but it also has a powerful intrinsic logic: he starts by looking at the factors that bear on a person's reaction in the precise moment a behavior occurs, and then hops back in time from there, in stages, ultimately ending up at the deep history of our species and its genetic inheritance. And so the first category of explanation is the neurobiological one.

What goes on in a person's brain a second before the behavior happens? Then he pulls out to a slightly larger field of vision, a little earlier in time: What sight, sound, or smell triggers the nervous system to produce that behavior? And then, what hormones act hours to days earlier to change how responsive that individual is to the stimuli which trigger the nervous system? By now, he has increased our field of vision so that we are thinking about neurobiology and the sensory world of our environment and endocrinology in trying to explain what happened. Sapolsky keeps going--next to what features of the environment affected that person's brain, and then back to the childhood of the individual, and then to their genetic makeup. Finally, he expands the view to encompass factors larger than that one individual. How culture has shaped that individual's group, what ecological factors helped shape that culture, and on and on, back to evolutionary factors thousands and even millions of years old. The result is one of the most dazzling tours de horizon of the science of human behavior ever attempted, a majestic synthesis that harvests cutting-edge research across a range of disciplines to provide a subtle and nuanced perspective on why we ultimately do the things we do...for good and for ill. Sapolsky builds on this understanding to wrestle with some of our deepest and thorniest questions relating to tribalism and xenophobia, hierarchy and competition, morality and free will, and war and peace. Wise, humane, often very funny, *Behave* is a towering achievement, powerfully humanizing, and downright heroic in its own right.

[The World in Six Songs](#) - Daniel Levitin 2019-07-04

Dividing the sum total of human musical achievement, from Beethoven to The Beatles, Busta Rhymes to Bach, into just six fundamental forms, Levitin illuminates, through songs of friendship, joy, comfort, knowledge, religion and love, how music has been instrumental in the evolution of language, thought and culture. And how, far from being a bit of a song and dance, music is at the core of what it means to be human. A one-time record producer, now a leading neuroscientist, Levitin has composed a catchy and startlingly ambitious narrative that weaves together Darwin and Dionne Warwick, memoir and biology, anthropology and a jukebox of anecdote to create nothing less than the 'soundtrack of civilisation'.

[The Human Advantage](#) - Suzana Herculano-Houzel 2016-03-18

Why our human brains are awesome, and how we left our cousins, the great apes, behind: a tale of neurons and calories, and cooking. Humans are awesome. Our brains are gigantic, seven times larger than they should be for the size of our bodies. The human brain uses 25% of all the energy the body requires each day. And it became enormous in a very short amount of time in evolution, allowing us to leave our cousins, the great apes, behind. So the human brain is special, right? Wrong, according to Suzana Herculano-Houzel. Humans have developed cognitive abilities that outstrip those of all other animals, but not because we are evolutionary outliers. The human brain was not singled out to become amazing in its own exclusive way, and it never stopped being a primate brain. If we are not an exception to the rules of evolution, then what is the source of the human advantage? Herculano-Houzel shows that it is not the size of our brain that matters but the fact that we have more neurons in the cerebral cortex than any other animal, thanks to our ancestors' invention, some 1.5 million years ago, of a more efficient way to obtain calories: cooking. Because we are primates, ingesting more calories in less time made possible the rapid acquisition of a huge number of neurons in the still fairly small cerebral cortex—the part of the brain responsible for finding patterns, reasoning, developing technology, and passing it on through culture. Herculano-Houzel shows us how she came to these conclusions—making “brain soup” to determine the number of neurons in the brain, for example, and bringing animal brains in a suitcase through customs. *The Human Advantage* is an engaging and original look at how we became remarkable without ever being special.

The Shallows: What the Internet Is Doing to Our Brains - Nicholas Carr 2011-06-06

Finalist for the 2011 Pulitzer Prize in General Nonfiction: “Nicholas Carr has written a *Silent Spring* for the literary mind.”—Michael Agger, *Slate* “Is Google making us stupid?” When Nicholas Carr posed that question, in a celebrated *Atlantic Monthly* cover story, he tapped into a well of anxiety

about how the Internet is changing us. He also crystallized one of the most important debates of our time: As we enjoy the Net's bounties, are we sacrificing our ability to read and think deeply? Now, Carr expands his argument into the most compelling exploration of the Internet's intellectual and cultural consequences yet published. As he describes how human thought has been shaped through the centuries by “tools of the mind”—from the alphabet to maps, to the printing press, the clock, and the computer—Carr interweaves a fascinating account of recent discoveries in neuroscience by such pioneers as Michael Merzenich and Eric Kandel. Our brains, the historical and scientific evidence reveals, change in response to our experiences. The technologies we use to find, store, and share information can literally reroute our neural pathways. Building on the insights of thinkers from Plato to McLuhan, Carr makes a convincing case that every information technology carries an intellectual ethic—a set of assumptions about the nature of knowledge and intelligence. He explains how the printed book served to focus our attention, promoting deep and creative thought. In stark contrast, the Internet encourages the rapid, distracted sampling of small bits of information from many sources. Its ethic is that of the industrialist, an ethic of speed and efficiency, of optimized production and consumption—and now the Net is remaking us in its own image. We are becoming ever more adept at scanning and skimming, but what we are losing is our capacity for concentration, contemplation, and reflection. Part intellectual history, part popular science, and part cultural criticism, *The Shallows* sparkles with memorable vignettes—Friedrich Nietzsche wrestling with a typewriter, Sigmund Freud dissecting the brains of sea creatures, Nathaniel Hawthorne contemplating the thunderous approach of a steam locomotive—even as it plumbs profound questions about the state of our modern psyche. This is a book that will forever alter the way we think about media and our minds.

Music, Science, and the Rhythmic Brain - Jonathan Berger 2012-03-22

This book studies the effects of repetitive musical rhythm on the brain and nervous system, and in doing so integrates diverse fields including ethnomusicology, psychology, neuroscience, anthropology, religious studies, music therapy, and human health. It presents aspects of musical rhythm and biological rhythms, and in particular rhythmic entrainment, in a way that considers cultural context alongside theoretical research and discussions of potential clinical and therapeutic implications. Considering the effects of drumming and other rhythmic music on mental and bodily functioning, the volume hypothesizes that rhythmic music can have a dramatic impact on mental states, sometimes catalyzing profound changes in arousal, mood, and emotional states via the stimulation of changes in physiological functions like the electrical activity in the brain. The experiments presented here make use of electroencephalography (EEG), galvanic skin response (GSR), and subjective measures to gain insight into how these mental states are evoked, what their relationship is to the music and context of the experience, and demonstrate that they are happening in a consistent and reproducible fashion, suggesting clinical applications. This comprehensive volume will appeal to scholars in cognition, ethnomusicology, and music perception who are interested in the therapeutic potential of music.

[Successful Aging](#) - Daniel J. Levitin 2020-01-07

INSTANT TOP 10 BESTSELLER • New York Times • USA Today • Washington Post • LA Times “Debunks the idea that aging inevitably brings infirmity and unhappiness and instead offers a trove of practical, evidence-based guidance for living longer and better.”—Daniel H. Pink, author of *When and Drive* **SUCCESSFUL AGING** delivers powerful insights: • Debunking the myth that memory always declines with age • Confirming that “health span”—not “life span”—is what matters • Proving that sixty-plus years is a unique and newly recognized developmental stage • Recommending that people look forward to joy, as reminiscing doesn't promote health Levitin looks at the science behind what we all can learn from those who age joyously, as well as how to adapt our culture to take full advantage of older people's wisdom and experience. Throughout his exploration of what aging really means, using research from developmental neuroscience and the psychology of individual differences, Levitin reveals resilience strategies and practical, cognitive enhancing tricks everyone should

do as they age. Successful Aging inspires a powerful new approach to how readers think about our final decades, and it will revolutionize the way we plan for old age as individuals, family members, and citizens within a society where the average life expectancy continues to rise.

Layoverland - Gabby Noone 2020-01-21

"A cheeky take on the afterlife brimming with sass, angst, and heart." -- Christine Riccio, New York Times bestselling author of *Again, but Better*. Beatrice Fox deserves to go straight to hell. At least, that's what she believes. Her last day on Earth, she ruined the life of the person she loves most--her little sister, Emmy. So when Bea awakens from a fatal car accident to find herself on an airplane headed who knows where, she's confused, to say the least. Once on the ground, Bea receives some truly harrowing news: she's in purgatory. If she ever wants to catch a flight to heaven, she'll have to help five thousand souls figure out what's keeping them from moving on. But one of Bea's first assignments is Caleb, the boy who caused her accident, and the last person Bea would ever want to send to the pearly gates. And as much as Bea would love to see Caleb suffer for dooming her to a seemingly endless future of eating bad airport food and listening to other people's problems, she can't help but notice that he's kind of cute, and sort of sweet, and that maybe, despite her best efforts, she's totally falling for him. From debut author Gabby Noone comes a darkly hilarious and heartfelt twist on the afterlife about finding second chances, first loves, and new friendships in the most unlikely places.

This Is Your Brain on Music - Professor Daniel J Levitin 2013-02-06

Traditional Chinese edition of *This Is Your Brain on Music: The Science of A Human Obsession*. Levitin is a Professor of Psychology and Music and a musician/record producer. He explains how music affects our brain and the way our brain processes music as a scientist as well as a musician. In Traditional Chinese. Annotation copyright Tsai Fong Books, Inc. Distributed by Tsai Fong Books, Inc.

Emotion and Meaning in Music - Leonard B. Meyer 1956

"Altogether it is a book that should be required reading for any student of music, be he composer, performer, or theorist. It clears the air of many confused notions . . . and lays the groundwork for exhaustive study of the basic problem of music theory and aesthetics, the relationship between pattern and meaning."—David Kraehenbuehl, *Journal of Music Theory* "This is the best study of its kind to have come to the attention of this reviewer."—Jules Wolfers, *The Christian Science Monitor* "It is not too much to say that his approach provides a basis for the meaningful discussion of emotion and meaning in all art."—David P. McAllester, *American Anthropologist* "A book which should be read by all who want deeper insights into music listening, performing, and composing."—Marcus G. Raskin, *Chicago Review*

The Music Instinct - Philip Ball 2011-11-30

Why have all human cultures - today and throughout history - made music? Why does music excite such rich emotion? How do we make sense of musical sound? These are questions that have, until recently, remained mysterious. Now *The Music Instinct* explores how the latest research in music psychology and brain science is piecing together the puzzle of how our minds understand and respond to music. Ranging from Bach fugues to nursery rhymes to heavy rock, Philip Ball interweaves philosophy, mathematics, history and neurology to reveal why music moves us in so many ways. Without requiring any specialist knowledge, *The Music Instinct* will both deepen your appreciation of the music you love, and open doors to music that once seemed alien, dull or daunting, offering a passionate plea for the importance of music in education and in everyday life. 'You'll never listen to music the same way again' - Independent

Physics and Music - Harvey E. White 2014-04-15

Comprehensive and accessible, this foundational text surveys general principles of sound, musical scales, characteristics of instruments, mechanical and electronic recording devices, and many other topics. More than 300 illustrations plus questions, problems, and projects.

How Music Works - John Powell 2014-06-11

John Powell, a scientist and musician, answers questions about harmony, timbre, keys, chords, loudness, musical composition, and many more in this

intriguing and original guide to acoustics.

This is Your Brain on Music - Daniel J. Levitin 2006

Music, Evolution, and the Harmony of Souls - Alan R. Harvey 2017

Music is central to human cultural and intellectual experience. It is vitally important for the welfare of human society and - this book argues - should become more widely accepted in our community as a mainstream educational and therapeutic tool. This book explores the importance of music throughout human evolution, and its continued relevance to modern-day human society. Throughout, the emphasis is on the origin of music and how (and where) it is processed in our brains, exploring in detail the genetic and cultural evolution of modern, loquacious humans, how we may have evolved with unique neural and cognitive architecture, and why two complementary but distinct communication systems - language and music - remain a human universal. In addition the book explores, in some depth, the different theories that have been put forward to explain why musical communication was (and remains) advantageous to our species, with a particular emphasis on the role of music and dance in enhancing altruistic and prosocial behaviours. The author suggests that music, and the social harmonization it brings, was of vital importance in early humans as we became more and more individualized by the emergence of modern language and the modern mind, and the realization that we are mortal. *Music, Evolution, and the Harmony of Souls* demonstrates the evolutionary sociobiological importance of music as a driver of cooperative and interactive behaviour throughout human existence, and what this evolutionary imperative means to twenty-first century humanity and beyond, from social and medical/neurological perspectives

Foundations in Music Psychology - Peter Jason Rentfrow 2019-03-12

A state-of-the-art overview of the latest theory and research in music psychology, written by leaders in the field. This authoritative, landmark volume offers a comprehensive state-of-the-art overview of the latest theory and research in music perception and cognition. Eminent scholars from a range of disciplines, employing a variety of methodologies, describe important findings from core areas of the field, including music cognition, the neuroscience of music, musical performance, and music therapy. The book can be used as a textbook for courses in music cognition, auditory perception, science of music, psychology of music, philosophy of music, and music therapy, and as a reference for researchers, teachers, and musicians. The book's sections cover music perception; music cognition; music, neurobiology, and evolution; musical training, ability, and performance; and musical experience in everyday life. Chapters treat such topics as pitch, rhythm, and timbre; musical expectancy, musicality, musical disorders, and absolute pitch; brain processes involved in music perception, cross-species studies of music cognition, and music across cultures; improvisation, the assessment of musical ability, and singing; and music and emotions, musical preferences, and music therapy. Contributors Fleur Bouwer, Peter Cariani, Laura K. Cirelli, Annabel J. Cohen, Lola L. Cuddy, Shannon de L'Etoile, Jessica A. Gahn, David M. Greenberg, Bruno Gingras, Henkjan Honing, Lorna S. Jakobson, Ji Chul Kim, Stefan Koelsch, Edward W. Large, Miriam Lense, Daniel Levitin, Charles J. Limb, Psyche Loui, Stephen McAdams, Lucy M. McGarry, Malinda J. McPherson, Andrew J. Oxenham, Caroline Palmer, Aniruddh Patel, Eve-Marie Quintin, Peter Jason Rentfrow, Edward Roth, Frank A. Russo, Rebecca Scheurich, Kai Siedenburg, Avital Sternin, Yanan Sun, William F. Thompson, Renee Timmers, Mark Jude Tramo, Sandra E. Trehub, Michael W. Weiss, Marcel Zentner

The Sound of Being Human - Jude Rogers 2022-04-28

'Too often we treat popular music as wallpaper surrounding us as we live our lives. Jude Rogers shows the emotional and cerebral heft such music can have. It's a personal journey which becomes universal. Fascinating' Ian Rankin 'Moving and absorbing, *The Sound of Being Human* mixes memoir, analysis, anecdote and personal chronicle into a mosaic that evokes what music means to the individual and the human tribe. A candid, beautiful read' Stuart Maconie *The Sound of Being Human* explores, in detail, why music plays such a deep-rooted role in so many lives, from before we are born to our last days. At its heart is Jude's own story: how songs helped her wrestle with the

grief of losing her father at age five; concoct her own sense of self as a lonely adolescent; sky-rocket her relationships, both real and imagined, in the flushes of early womanhood, propel her own journey into working life, adulthood and parenthood, and look to the future. Shaped around twelve songs, ranging from ABBA's 'Super Trouper' to Neneh Cherry's 'Buffalo Stance', Kraftwerk's 'Radioactivity' to Martha Reeves and the Vandellas' 'Heat Wave', the book combines memoir and historical, scientific and cultural enquiry to show how music can shape different versions of ourselves; how we rely upon music for comfort, for epiphanies, and for sexual and physical connection; how we grow with songs, and songs grow inside us, helping us come to terms with grief, getting older and powerful memories. It is about music's power to help us tell our own stories, whatever they are, and make them sing.

This Is Your Brain on Music - Daniel J. Levitin 2006-08-03

In this groundbreaking union of art and science, rocker-turned-neuroscientist Daniel J. Levitin explores the connection between music—its performance, its composition, how we listen to it, why we enjoy it—and the human brain.

Taking on prominent thinkers who argue that music is nothing more than an evolutionary accident, Levitin poses that music is fundamental to our species, perhaps even more so than language. Drawing on the latest research and on musical examples ranging from Mozart to Duke Ellington to Van Halen, he reveals:

- How composers produce some of the most pleasurable effects of listening to music by exploiting the way our brains make sense of the world
- Why we are so emotionally attached to the music we listened to as teenagers, whether it was Fleetwood Mac, U2, or Dr. Dre
- That practice, rather than talent, is the driving force behind musical expertise
- How those insidious little jingles (called earworms) get stuck in our head

A Los Angeles Times Book Award finalist, *This Is Your Brain on Music* will attract readers of Oliver Sacks and David Byrne, as it is an unprecedented, eye-opening investigation into an obsession at the heart of human nature.

[This Is Your Brain on Music](#) - Daniel J. Levitin 2007-08-28

In this groundbreaking union of art and science, rocker-turned-neuroscientist Daniel J. Levitin explores the connection between music—its performance, its composition, how we listen to it, why we enjoy it—and the human brain.

Taking on prominent thinkers who argue that music is nothing more than an evolutionary accident, Levitin poses that music is fundamental to our species, perhaps even more so than language. Drawing on the latest research and on musical examples ranging from Mozart to Duke Ellington to Van Halen, he reveals:

- How composers produce some of the most pleasurable effects of listening to music by exploiting the way our brains make sense of the world
- Why we are so emotionally attached to the music we listened to as teenagers, whether it was Fleetwood Mac, U2, or Dr. Dre
- That practice, rather than talent, is the driving force behind musical expertise
- How those insidious little jingles (called earworms) get stuck in our head

A Los Angeles Times Book Award finalist, *This Is Your Brain on Music* will attract readers of Oliver Sacks and David Byrne, as it is an unprecedented, eye-opening investigation into an obsession at the heart of human nature.

[Psychology of Music](#) - Siu-Lan Tan 2017-11-02

In *Psychology of Music: From Sound to Significance* (2nd edition), the authors consider music on a broad scale, from its beginning as an acoustical signal to its different manifestations across cultures. In their second edition, the authors apply the same richness of depth and scope that was a hallmark of the first edition of this text. In addition, having laid out the topography of the field in the original book, the second edition puts greater emphasis on linking academic learning to real-world contexts, and on including compelling topics that appeal to students' natural curiosity. Chapters have been updated with approximately 500 new citations to reflect advances in the field. The organization of the book remains the same as the first edition, while chapters have been updated and often expanded with new topics. 'Part I: Foundations' explores the acoustics of sound, the auditory system, and responses to music in the brain. 'Part II: The Perception and Cognition of Music' focuses on how we process pitch, melody, meter, rhythm, and musical structure. 'Part III: Development, Learning, and Performance' describes how musical capacities and skills unfold, beginning before birth and extending to the advanced and expert musician. And finally, 'Part IV: The Meaning and Significance of

Music' explores social, emotional, philosophical and cultural dimensions of music and meaning. This book will be invaluable to undergraduates and postgraduate students in psychology and music, and will appeal to anyone who is interested in the vital and expanding field of psychology of music.

[Music, the Brain, and Ecstasy](#) - Robert Jourdain 1997

At the evolution of music and introduces surprising new concepts of memory and perception, knowledge and attention, motion and emotion, all at work as music takes hold of us. Along the way, a fascinating cast of characters brings Jourdain's narrative to vivid life: "idiots savants" who absorb whole pieces on a single hearing, composers who hallucinate entire compositions, a psychic who claimed to take dictation from long-dead composers, and victims of brain damage who.

Music, Math, and Mind - David Sulzer 2021-03-23

This book offers a lively exploration of the mathematics, physics, and neuroscience that underlie music. Written for musicians and music lovers with any level of science and math proficiency, including none, *Music, Math, and Mind* demystifies how music works while testifying to its beauty and wonder.

The Organized Mind - Daniel Levitin 2015-01-29

Author and neuroscientist Daniel Levitin tackles the problems of twenty-first century information overload in his New York Times bestselling book *The Organized Mind*. 'The Organized Mind is smart, important, and as always, exquisitely written' - Daniel Gilbert, Harvard University, author of *Stumbling on Happiness* Overwhelmed by demands on your time? Baffled by the sheer volume of data? You're not alone: modern society is in a state of information overload. *The Organized Mind* investigates this phenomenon and the effect it has on us, analysing how and why our brains are struggling to keep up with the demands of the digital age. The twenty-first century sees us drowning under emails, forever juggling six tasks at once and trying to make complex decisions ever more quickly. Using a combination of academic research and examples from daily life, neuroscientist and bestselling author Daniel Levitin explains how to take back control of your life. This book will take you through every aspect of modern life, from healthcare to online dating to raising kids, showing that the secret to success is always organization. Levitin's research is surprising, powerful and will change the way you see the world. It's time to learn why there's no such thing as multitasking, why email is so addictive and why all successful people need a junk drawer. In a world where information is power, *The Organized Mind* holds the key to harnessing that information and making it work for you. Dr. Daniel J. Levitin has a PhD in Psychology, training at Stanford University Medical School and UC Berkeley. He is the author of the No. 1 bestseller *This Is Your Brain On Music* (Dutton, 2006), published in nineteen languages, and *The World in Six Songs* (Dutton, 2008) which hit the bestseller lists in its first week of release. Currently he is a James McGill Professor of Psychology, Behavioral Neuroscience and Music at McGill University in Montreal, Canada.

Musicophilia - Oliver Sacks 2018-07-12

With an introduction by neuroscientist Daniel Glaser. With his trademark compassion and erudition, Dr Oliver Sacks examines the power of music through the individual experiences of patients, musicians, and everyday people. Among them: a surgeon who is struck by lightning and suddenly becomes obsessed with Chopin; people with 'amusia', to whom a symphony sounds like the clattering of pots and pans; and a man whose memory spans only seven seconds – for everything but music. Dr Sacks describes how music can animate people with Parkinson's disease who cannot otherwise move, give words to stroke patients who cannot otherwise speak, and calm and organize people who are deeply disoriented by Alzheimer's or schizophrenia. *Musicophilia* alters our conception of who we are and how we function, and shows us an essential part of what it is to be human.

Mind Shift - John Parrington 2021-04-22

John Parrington argues that social interaction and culture have deeply shaped the exceptional nature of human consciousness. The mental capacities of the human mind far outstrip those of other animals. Our imaginations and creativity have produced art, music, and literature; built bridges and cathedrals; enabled us to probe distant galaxies, and to ponder the meaning of

our existence. When our minds become disordered, they can also take us to the depths of despair. What makes the human brain unique, and able to generate such a rich mental life? In this book, John Parrington draws on the latest research on the human brain to show how it differs strikingly from those of other animals in its structure and function at a molecular and cellular level. And he argues that this 'shift', enlarging the brain, giving it greater flexibility and enabling higher functions such as imagination, was driven by tool use, but especially by the development of one remarkable tool - language. The complex social interaction brought by language opened up the possibility of shared conceptual worlds, enriched with rhythmic sounds, and images that could be drawn on cave walls. This transformation enabled modern humans to leap rapidly beyond all other species, and generated an exceptional human consciousness, a sense of self that arises as a product of our brain biology and the social interactions we experience. Our minds, even those of identical twins, are unique because they are the result of this extraordinarily plastic brain, exquisitely shaped and tuned by the social and cultural environment in which we grew up and to which we continue to respond through life. Linking early work by the Russian psychologist Lev Vygotsky to the findings of modern neuroscience, Parrington explores how language, culture, and society mediate brain function, and what this view of the human mind

This is Your Brain on Music

may bring to our understanding and treatment of mental illness.

- Daniel Levitin 2019-07-04

From the author of *The Changing Mind* and *The Organized Mind* comes a New York Times bestseller that unravels the mystery of our perennial love affair with music ***** 'What do the music of Bach, Depeche Mode and John Cage fundamentally have in common?' Music is an obsession at the heart of human nature, even more fundamental to our species than language. From Mozart to the Beatles, neuroscientist, psychologist and internationally bestselling author Daniel Levitin reveals the role of music in human evolution, shows how our musical preferences begin to form even before we are born and explains why music can offer such an emotional experience. In *This Is Your Brain On Music* Levitin offers nothing less than a new way to understand music, and what it can teach us about ourselves. ***** 'Music seems to have an almost wilful, evasive quality, defying simple explanation, so that the more we find out, the more there is to know . . . Daniel Levitin's book is an eloquent and poetic exploration of this paradox' Sting 'You'll never hear music in the same way again' *Classic FM* magazine 'Music, Levitin argues, is not a decadent modern diversion but something of fundamental importance to the history of human development' *Literary Review*