Hand Mouth And Brain

How did humans evolve biologically so that our brains and social interactions could support language processes, and how did cultural evolution lead to the invention of languages (signed as well as spoken)? This book addresses these questions through comparative (neuro)primatology – comparative study of brain, behavior and communication in monkeys, apes and humans – and an EvoDevoSocio framework for approaching biological and cultural evolution within a shared perspective. Each chapter provides an authoritative yet accessible review from a different discipline: linguistics (evolutionary, computational and neuro), archeology and neuroarcheology, macaque neurophysiology, comparative neuroanatomy, primate behavior, and developmental studies. These diverse perspectives are unified by having each chapter close with a section on its implications for creating a new road map for multidisciplinary research. These implications include assessment of the pluses and minuses of the Mirror System Hypothesis as an "old" road map. The cumulative road map is then presented in the concluding chapter. Originally published as a special issue of Interaction Studies 19:1/2 (2018).

"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.

This volume contains the proceedings of a postgraduate course for medical practitioners of various specialties. One purpose of the course was to provide factual data on developmental aspects of the brain and behaviour, and about the possible impact of several important categories of internal and environ mental factors upon neural development. Another purpose was to indicate the extent and the limitations of the methodology now available for the scientific approach of the study of the development of behaviour. In general the investigator is faced with methodological problems of two types, the proper definition and scoring of behavioural items, and the isolation of the different factors that contribute to a particular behaviour. An example of the latter is given in the very last paper, which is concerned with attempts at unravelling under experimental conditions the contributions made by various influences upon a single sequence of behaviour. The course was held in Leiden in November 1970, and was the third in a series of Boerhaave Courses instigated by the Dutch Growth Foundation. Previous subjects have been 'Somatic growth of the child' (in 1964) and 'Human body composition' (in 1967). The programme was planned in collaboration with Prof. Dr. H. H. van Gelderen, Dr. D. G. Lawrence, Prof. Dr. F. J. Monks, Prof. Dr. H. F. R. Prechtl and Prof. Dr. H. K. A. Visser. Financial support was given by the pharmaceutical firms Philips-Duphar, Sandoz and Specia, and by the Dutch Growth Foundation. Major editorial contributions were made by Anneke Bot.

Brain-boosting recipes from the New York Times bestselling author and chief content adviser for the Dr. Phil show Food has the power to heal the brain. Now more than ever, we know that the chemical components in what we eat have powerful effects on the way our minds work, and that good nutrition is valuable for treating problems from cancer to depression. But how can we use this information to help us prepare actual meals? The Brain Power Cookbook has the answers. In this essential guide, Dr. Frank Lawlis and nutritionist Dr. Maggie Greenwood-Robinson have compiled over two hundred delicious recipes that can help your brain respond positively to all sorts of psychological challenges. Whether you want to build brain power, put an end to stress, expand your memory and concentration, or even boost intelligence, this book will show you how, featuring a hearty helping of great meal ideas designed to help you reach your goal. Each chapter tackles a different mental challenge, discusses which types of food have the most benefits, and then offers a full complement of recipes?from main courses to side dishes, snacks to beverages, and even desserts? that incorporate these foods in mouth-watering and brain-boosting ways. Drawing on tastes and styles from around the world, The Brain Power Cookbook offers spice and variety as it shows you how to enhance your mental fitness. With these recipes in hand, you?ll have all the ingredients you need to make your brain more efficient and maximize your success in work and life.

A Novel

Mirrors in the Brain: How our minds share actions and emotions

Probing the Mysteries of the Human Mind

Brain, Mind, Experience, and School: Expanded Edition

Workshop Summary

From Ecology to Brain Development: Bridging Separate Evolutionary Paradigms

First released in the Spring of 1999, How People Learn has been expanded to show how the theories and insights from the original book can translate into actions and practice, now making a real connection between classroom activities and learning behavior. This edition includes far-reaching suggestions for research that could increase the impact that classroom teaching has on actual learning. Like the original edition, this book offers exciting new research about the mind and the brain that provides answers to a number of compelling questions. When do infants begin to learn? How do experts learn and how is this different from non-experts? What can teachers and schools do-with curricula, classroom settings, and teaching methods--to help children learn most effectively? New evidence from many branches of science has significantly added to our understanding of what it means to know, from the neural processes that occur during learning to the influence of culture on what people see and absorb. How People Learn examines these findings and their implications for what we teach, how we teach it, and how we assess what our children learn. The book uses exemplary teaching to illustrate how approaches based on what we now know result in in-depth learning. This new knowledge calls into question concepts and practices firmly entrenched in our current education system. Topics include: How learning actually changes the physical structure of the brain. How existing knowledge affects what people notice and how they learn. What the thought processes of experts tell us about how to teach. The amazing learning potential of infants. The relationship of classroom learning and everyday settings of community and workplace. Learning needs and opportunities for teachers. A realistic look at the role of technology in education.

"Bonus inside: maker activities you can do at home!"--Page 4 of cover.

Does listening to Mozart make us more intelligent? Is there such a thing as a gay gene? Does the size of the brain matter? Does the moon influence our behaviour? Can we communicate with the dead? Can graphology tell us anything about a person's character? Is the human brain clonable? What role do dreams have in cognition? Can mind conquer matter and diseases? Are out-of-body experiences possible? Can we trust our intuitions? To some, the answer to all these questions might well be resounding 'no', but to many people these represents serious beliefs about the mind and the brain ... Tall tales about the mind and brain presents a sweeping survey of common myths about the mind and brain. In a light-hearted and accessible style, it exposes the truth behind these beliefs, how they are perpetuated, why people believe them, and even why they might exist in the first place. -- Reverso de cubierta.

A totalitarian regime has ordered all books to be destroyed, but one of the book burners suddenly realizes their merit.

From Vegetative State to Meaningful Life

From Mouse to Man

How People Learn

Basal Ganglia, Connecting Systems, Cerebellum, Mirror Neurons

Relationships Among the Brain, the Digestive System, and Eating Behavior

Separating Fact from Fiction

Surviving Brain Damage After Assault

The progression from newborn to sophisticated language user in just a few short years is often described as wonderful and miraculous. What are the biological, cognitive, and social underpinnings of this miracle? What major language development milestones occur in infancy? What methodologies do researchers employ in studying this progression? Why do some become adept at multiple languages while others face a lifelong struggle with just one? What accounts for declines in language proficiency, and how might such declines be moderated? Despite an abundance of textbooks, specialized monographs, and a couple of academic handbooks, there has been no encyclopedic reference work in this area--until now. The Encyclopedia of Language Development covers the breadth of theory and research on language development from birth through adulthood, as well as their practical application. Features: This affordable A-to-Z reference includes 200 articles that address such topic areas as theories and research tradition; biological perspectives; cognitive perspectives; family, peer, and social influences; bilingualism; special populations and disorders; and more. All articles (signed and authored by key figures in the field) conclude with cross reference links and suggestions for further reading. Appendices include a Resource Guide with annotated lists of classic books and articles, journals, associations, and web sites; a Glossary of specialized terms; and a Chronology offering an overview and history of the field. A thematic Reader's Guide groups related articles by broad topic areas as one handy search feature on the e-Reference platform, which includes a comprehensive index of search terms. Available in both print and electronic formats, Encyclopedia of Language Development is a must-have reference for researchers and is ideal for library reference or circulating collections.

New York Times Bestseller An exciting--and encouraging--exploration of creativity from the author of When: The Scientific Secrets of Perfect Timing The future belongs to a different kind of person with a different kind of mind: artists, inventors, storytellers-creative and holistic "right-brain" thinkers whose abilities mark the fault line between who gets ahead and who doesn't. Drawing on research from around the world, Pink (author of To Sell Is Human: The Surprising Truth About Motivating Others) outlines the six fundamentally human abilities that are absolute essentials for professional success and personal fulfillment--and reveals how to master them. A Whole New Mind takes readers to a daring new place, and a provocative and necessary new way of thinking about a future that's already here.

The nervous system is the product of biological evolution and is shaped by the interplay between extrinsic factors determining the ecology of animals, and by intrinsic processes that dictate the developmental rules that give rise to adult functional structures. This special topic is oriented to develop an integrative view from behavior and ecology to neurodevelopmental processes. We address questions such as how do sensory systems evolve according to ecological conditions? How do neural networks organize to generate adaptive behavior? How does cognition and brain connectivity evolve? What are the developmental mechanisms that give rise to functional adaptation? Accordingly, the book is divided in three sections, (i) Evolution of sensorimotor systems; (ii) Cognitive computations and neural circuits, and (iii) Development and brain evolution. We hope that this initiative will support an interdisciplinary program that addresses the nervous system as a unified organ, subject to both functional and developmental constraints, where the final outcome results of a compromise between different parameters rather than being the result of several single variables acting independently of each other.

Drawing on the work of Maria Montessori and contemporary virtue epistemologists such as Linda Zagzebski and Jason Baehr, Intellectual Agency and Virtue Epistemology presents a new interpretation of the nature of intellectual agency and its associated virtues. Focusing on Montessori's interpretation of specific virtues including sensory attentiveness, intellectual love and intellectual humility, it discusses why these are virtues, why one can be held responsible for them, and how they relate to each other. Moreover, it considers pedagogical implications of considering these capacities to be virtues. Intellectual Agency and Virtue Epistemology not only reveals the value of seeing Montessori as a virtue epistemologist, it encourages educationalists to take seriously the cultivation of intellectual virtues as an important part of the education of children.

The Magnificent Makers #2: Brain Trouble

The Brain's Behind it

From Neurons to Neighborhoods

Brains on Fire

Humanoid Robotics and Neuroscience

Iconicity in Language Learning

How the Brain Got Language – Towards a New Road Map

Hand, foot and mouth disease (HFMD) is a common infectious disease caused by a group of enteroviruses, including coxsackievirus A16 (CA16) and enterovirus 71 (EV71). Over the last decade, many outbreaks of HFMD have been reported in countries of the Western Pacific Region. HFMD caused by EV71 is of particular concern because of the increased number of deaths associated with infection. Until now, there has been little guidance on HFMD caused by EV71. This publication provides practical support for the treatment, prevention and control of HFMD based on the most recent scientific literature and the current understanding and experiences of international experts. It is intended as a resource for both clinicians working with HFMD cases on a regular basis and for public health personnel who are responsible for preventing and responding to outbreaks of HFMD.

The brain ... There is no other part of the human anatomy that is so intriguing. How does it develop and function and why does it sometimes, tragically, degenerate? The answers are complex. In Discovering the Brain, science writer Sandra Ackerman cuts through the complexity to bring this vital topic to the public. The 1990s were declared the "Decade of the Brain" by former President Bush, and the neuroscience community responded with a host of new investigations and conferences. Discovering the Brain is based on the Institute of Medicine conference, Decade of the Brain: Frontiers in Neuroscience and Brain Research. Discovering the Brain is a "field guide" to the brain--an easy-to-read discussion of the brain's physical structure and where functions such as language and music appreciation lie. Ackerman examines How electrical and chemical signals are conveyed in the brain. The mechanisms by which we see, hear, think, and pay attention--and how a "gut feeling" actually originates in the brain. Learning and memory retention, including parallels to computer memory and what they might tell us about our own mental capacity. Development of the brain throughout the life span, with a look at the aging brain. Ackerman provides an enlightening chapter on the connection between the brain's physical condition and various mental disorders and notes what progress can realistically be made toward the prevention and treatment of stroke and other ailments. Finally, she explores the potential for major advances during the "Decade of the Brain," with a look at medical imaging techniques--what various technologies can and cannot tell us--and how the public and private sectors can contribute to continued advances in neuroscience. This highly readable volume will provide the public and policymakers--and many scientists as well--with a helpful guide to understanding the many discoveries that are sure to be announced throughout the "Decade of the Brain."

This book presents the human hand from an overall perspective from the first appearance of hand-like structures in the fins of big fishes living millions of years ago to today s and the future s mind-controlled artificial hands. Much focus is given to the extremely well-developed sensation of the hand, its importance and its linkage to brain plasticity mechanisms. How can active hands rapidly expand their representational area in the brain? How can the sense of touch substitute for other deficient senses, such as in Braille reading where hand sensation substitutes for missing vision? How can the mere observation of active hands, belonging to others, activate the hand area in the observer s own brain and what is the importance of this phenomenon for learning by imitation and the understanding of other peoples actions, gestures and body language? Why are some of us left-handed and what are the consequences from cultural and physiological viewpoints? Why does phantom sensation and phantom pain occur after hand amputation, and what can we do about it? Why can salamanders regenerate new extremities while humans can not? Is it possible to transplant a hand from a diseased individual to an amputee? Can artificial robotic hands be controlled by our mind, and can they ever gain the role of a normal hand? What role did the hand and the brain play during evolution in tool construction and development of language and cognitive functions? The hand has a high symbolic value in religion, literature and art and our hands have a key role in gestures and body language. The Hand and the Brain is aimed at anybody with interest in life sciences, in the medical field especially hand surgeons, orthopaedic specialists, neurologists and general practitioners, and those working in rehabilitation medicine and pain treatment. The original Swedish version of The Hand and the Brain has also become very popular among physiotherapists, occupational therapists, psychologists, and among a general population with an interest in science.

Humanoid robots are highly sophisticated machines equipped with human-like sensory and motor capabilities. Today we are on the verge of a new era of rapid transformations in both science and engineering one that brings together technological advancements in a way that will accelerate both neuroscience and robotics. Humanoid Robotics and Neuroscience: Science, Engineering and Society presents the contributions of prominent scientists who explore key aspects of the further potential of these systems. Topics include: Neuroscientific research findings on dexterous robotic hand control Humanoid vision and how understanding the structure of the human eye can lead to improvements in artificial vision Humanoid locomotion, motor control, and the learning of motor skills Cognitive elements of humanoid robots, including the neuroscientific aspects of imitation and development The impact of robots on society and the potential for developing new systems and devices to benefit humans The use of humanoid robotics can help us develop a greater scientific understanding of humans, leading to the design of better engineered systems and machines for society. This book assembles the work of scientists on the cutting edge of robotic research who demonstrate the vast possibilities in this field of research.

Normal and Abnormal Development of Brain and Behaviour

Anatomy of the Brain Anatomical Chart

Love on the Brain

Phantoms in the Brain

New Knowledge about the Brain and Learning

The Swedenborg Concordance: a Complete Work of Reference to the Theological Writings of Emanuel Swedenborg

Brain Mechanisms for Processing Speech-associated Movements

'My first serious blackout marked the line between sanity and insanity. Though I would have moments of lucidity over the coming days and weeks, I would never again be the same person ...' Susannah Cahalan was a happy, clever, healthy twenty-four-year old. Then one day she woke up in hospital, with no memory of what had happened or how she had got there. Within weeks, she would be transformed into someone unrecognizable, descending into a state of acute psychosis, undergoing rages and convulsions, hallucinating that her father had murdered his wife; that she could control time with her mind. Everything she had taken for granted about her life, and who she was, was wiped out. Brain on Fire is Susannah's story of her terrifying descent into madness and the desperate hunt for a diagnosis, as, after dozens of tests and scans, baffled doctors concluded she should be confined in a psychiatric ward. It is also the story of how one brilliant man, Syria-born Dr Najar, finally proved - using a simple pen and paper - that Susannah's psychotic behaviour was caused by a rare autoimmune disease attacking her brain. His diagnosis of this little-known condition, thought to have been the real cause of devil-possessions through history, saved her life, and possibly the lives of many others. Cahalan takes readers inside this newly-discovered disease through the progress of her own harrowing journey, piecing it together using memories, journals, hospital videos and records. Written with passionate honesty and intelligence, Brain on Fire is a searingly personal yet universal book, which asks what happens when your identity is suddenly destroyed, and how you get it back. 'With eagle-eye precision and brutal honesty, Susannah Cahalan turns her journalistic gaze on herself as she bravely looks back on one of the most harrowing and unimaginable experiences one could ever face: the loss of mind, body and self. Brain on Fire is a mesmerizing story' -Mira Bartók, New York Times bestselling author of The Memory Palace Susannah Cahalan is a reporter on the New York Post, and the recipient of the 2010 Silurian Award of Excellence in Journalism for Feature Writing. Her writing has also appeared in the New York Times, and is frequently picked up by the Daily Mail, Gawker, Gothamist, AOL and Yahoo among other news aggregrator sites.

The emergence of language, social intelligence, and tool development are what made homo sapiens sapiens differentiate itself from all other biological species in the world. The use of language and the management of social and instrumental skills imply an awareness of intention and the consideration that one faces another individual with an attitude analogical to that of one's own. The metaphor of 'mirror' aptly comes to mind.Recent investigations have shown that the human ability to 'mirror' other's actions originates in the brain at a much deeper level than phenomenal awareness. A new class of neurons has been discovered in the premotor area of the monkey brain: 'mirror neurons'. Quite remarkably, they are tuned to fire to the enaction as well as observation of specific classes of behavior: fine manual actions and actions performed by mouth. They become activated independent of the agent, be it the self or a third person whose action is observed. The activation in mirror neurons is automatic and binds the observation and enaction of some behavior by the self or by the observed other. The peculiar first-to-third-person 'intersubjectivity' of the performance of mirror neurons and their surprising complementarity to the functioning of strategic communicative face-to-face (first-to-second person) interaction may shed new light on the functional architecture of conscious vs. unconscious mental processes and the relationship between behavioral and communicative action in monkeys, primates, and humans. The present volume discusses the nature of mirror neurons as presented by the research team of Prof. Giacomo Rizzolatti (University of Parma), who originally discovered them, and the implications to our understanding of the evolution of brain, mind and communicative interaction in non-human primates and man.(Series B)

Neuroscientist V.S. Ramachandran is internationally renowned for uncovering answers to the deep and quirky questions of human nature that few scientists have dared to address. His bold insights about the brain are matched only by the stunning simplicity of his experiments -- using such low-tech tools as cotton swabs, glasses of water and dime-store mirrors. In Phantoms in the Brain, Dr. Ramachandran recounts how his work with patients who have bizarre neurological disorders has shed new light on the deep architecture of the brain, and what these findings tell us about who we are, how we construct our body image, why we laugh or become depressed, why we may believe in God, how we make decisions, deceive ourselves and dream, perhaps even why we're so clever at philosophy, music and art. Some of his most notable cases: A woman paralyzed on the left side of her body who believes she is lifting a tray of drinks with both hands offers a unique opportunity to test Freud's theory of denial. A man who insists he is talking with God challenges us to ask: Could we be "wired" for religious experience? A woman who hallucinates cartoon characters illustrates how, in a sense, we are all hallucinating, all the time. Dr. Ramachandran's inspired medical detective work pushes the boundaries of medicine's last great frontier -- the human mind -- yielding new and provocative insights into the "big questions" about consciousness and the self.

An expert in brain function offers a simple explanation of how the human brain is adjusting to the complicated, data-filled world humans have created. 35,000 first printing.

Mirror Neurons and the Evolution of Brain and Language

Brain Games for Babies, Toddlers & Twos

Growth and Maturation of the Brain

Brain On Fire: My Month of Madness

Brain Lesion Localization and Developmental Functions

Stories of Personal Triumph from the Frontiers of Brain Science

The Origins of Language

Whether it is through singing, dancing, talking or cuddling, you can encourage the pathways of your child's brain to make new connections. This book contains 140 games that will promote brain power, improve hand-eye coordination and develop thought processes, imagination and memory. The activities are split into appropriate age groups, ranging from birth-3 months and 33-36 months.

Anatomy of the Brain with illustrations by renowned medical illustrator Keith Kasnot is one of our most popular charts. Beautiful, clear illustrations make the structures of the brain come alive . All illustraions are clearly labeled and vividly colored. Illustrations include: Central image showing major structures, cerebral hemispheres and key cranial nerves Arteries of the Brain (base and right side views) Venous Sinuses Lobes of the brain Cross-section of meninges & venous sinuses Typical nerve and glial cells, Circulation of cerebrospinal fluid Made in the USA. Available in the following versions : 20" x 26" heavy paper laminated with grommets at top corners ISBN 9781587790898 20" x 26" heavy paper ISBN 9781587790904

Create the brain connections needed for future learning all while having fun.

Emotions and actions are powerfully contagious; when we see someone laugh, cry, show disgust, or experience pain, in some sense, we share that emotion. When we see someone in distress, we share that distress. When we see a great actor, musician or sportsperson perform at the peak of their abilities, it can feel like we are experiencing just something of what they are experiencing. Yet only recently, with the discover of mirror neurons, has it become clear just how this powerfulsharing of experience is realised within the human brain. This book provides, for the first time, a systematic overview of mirror neurons, written by the man who first discovered them.In the early 1990's Giacomo Rizzolatti and his co-workers at the University of Parma discovered that some neurons had a surprising property. They responded not only when a subject performed a given action, but also when the subject oberved someone else performing that same action. These results had a deep impact on cognitive neuroscience, leading the neuroscientist VS Ramachandran to predict that 'mirror neurons would do for psychology what DNA did for biology'. The unexpected properties ofthese neurons have not only attracted the attention of neuroscientists. Many sociologists, anthropologists, and even artists have been fascinated by mirror neurons. The director and playwright Peter Brook stated that mirror neurons throw new light on the mysterious link that is created each time actorstake the stage and face their audience - the sight of a great actor performing activates in the brain of the observer the very same areas that are active in the performer - including both their actions and their emotions.Written in a highly accessible style, that conveys something of the excitement of this groundbreaking theory, Mirrors in the brain is the definitive account of one the major scientific discoveries of the past 50 years.

Fahrenheit 451

125 Brain Games for Babies

Science, Engineering and Society

Language by mouth and by hand

Why Right-Brainers Will Rule the Future

The Hand and the Brain

A Whole New Mind

From the New York Times bestselling author of The Love Hypothesis comes a new STEMinist rom-com in which a scientist is forced to work on a project with her nemesis--with explosive results. Like an avenging, purple-haired Jedi bringing balance to the mansplained universe, Bee K ö nigswasser lives by a simple code: What would Marie Curie do? If NASA offered her the lead on a neuroengineering project--a literal dream come true after years scraping by on the crumbs of academia--Marie would accept without hesitation. Duh. But the mother of modern physics never had to co-lead with Levi Ward. Sure, Levi is attractive in a tall, dark, and piercing-eyes kind of way. And sure, he caught her in his powerfully corded arms like a romance novel hero when she accidentally damseled in distress on her first day in the lab. But Levi made his feelings toward Bee very clear in grad school--archenemies work best employed in their own galaxies far, far away. Now, her equipment is missing, the staff is ignoring her, and Bee finds her floundering career in somewhat of a pickle. Perhaps it's her occipital cortex playing tricks on her, but Bee could swear she can see Levi softening into an ally, backing her plays, seconding her ideas...devouring her with those eyes. And the possibilities have all her neurons firing. But when it comes time to actually make a move and put her heart on the line, there's only one question that matters: What will Bee K ö nigswasser do?

On July 9-10, 2014, the Institute of Medicine's Food Forum hosted a public workshop to explore emerging and rapidly developing research on relationships among the brain, the digestive system, and eating behavior. Drawing on expertise from the fields of nutrition and food science, animal and human physiology and behavior, and psychology and psychiatry as well as related fields, the purpose of the workshop was to (1) review current knowledge on the relationship between the brain and eating behavior, explore the interaction between the brain and the digestive system, and consider what is known about the brain's role in eating patterns and consumer choice; (2) evaluate current methods used to determine the impact of food on brain activity and eating behavior; and (3) identify gaps in knowledge and articulate a theoretical framework for future research. Relationships among the Brain, the Digestive System, and Eating Behavior summarizes the presentations and discussion of the workshop.

If you want to know more about the brain and learning, this is the book you need. In what promises to become the most trusted resource of the brain-based learning movement, The Brain's Behind It guides you through the development cycle of the brain and then describes what helps and hinders learning. This fascinating, highly topical, and well-researched book answers many of your questions, including -- Can you teach intelligence? How can I recognize a learner under stress? What to do about it? Why won't my students sit still? What factors in a mother's lifestyle will influence her baby's learning? What is the best time for my child to begin formal learning? What is the best time to learn any language? What is memory? How does sleep improve all-round memory and recall? What happens to my brain as I age? The Brain's Behind It identifies fallacies, fads, and facts about the brain and learning and gives you recommendations, whether you're a teacher, parent, or policy-maker.

Growth and Maturation of the Brain

The New Brain

Tall Tales about the Mind and Brain

Simple Games to Promote Early Brain Development

The Brain That Changes Itself

The Role of Mimetics in Word Learning Tasks

From Hand to Mouth

Visual Language Strategies for Individuals with Autism Spectrum Disorders

One of the Most Rapidly Advancing Fields in Modern Neuroscience The success of molecular biology and the new tools derived from molecular genetics have revolutionized pain research and its translation to therapeutic effectiveness. Bringing together recent advances in modern neuroscience regarding genetic studies in mice and humans and the practicality of clinical trials, Translational Pain Research: From Mouse to Man effectively bridges the gap between basic research and patient care by humanely examining rodent models for pain associated with bone cancer, osteoarthritis, fibromyalgia, and cardiac episodes. Distinguished Team of International Contributors In addition to addressing the groundbreaking technical advances in tract tracing, endocannabinoids, cannabis, gene therapy, siRNA gene studies, and the role of glia, cytokines, P2X receptors and ATP, this book also presents cutting-edge information on: Nociceptor sensitization Muscle nociceptors and metabolite detection Visceral afferents in disease Innovative rodent model for bone cancer pain Highly specific receptor cloning Modular molecular mechanisms relevant to painful neuropathies This sharply focused work also discusses unexpected discoveries derived from brain-imaging studies related to thalamic pain. Translational Pain Research covers the progress made toward bringing laboratory science (much of it at the molecular level) to our understanding of pain phenomena in humans, with the ultimate goal of reducing the suffering that often accompanies pain and its indirect consequences.

Children diagnosed with an autism spectrum disorder (ASD) often present parents and educators with perplexing symptoms. Even though the skills of children with ASD can range from very high to very low, they have similar underlying learning systems. Knowledge about these learning systems helps provide direction for choosing effective assessment and intervention methods for helping individuals with ASD learn to behave, to perform academically, and to become socially competent.This book is unique in that the authors are recommending strategies based on the language of the way individuals with ASD learn. Even though many scholars recognize that individuals with ASD use "visual" ways of thinking, most fail to realize that a visual mental language is different from the visual sensory system of seeing something.The book is divided into three sections. Section One (Chapters 1-5) is about the learning system. Section Two (Chapters 6-9) connects the learning of a child with ASD to how the child performs behaviorally, academically, and socially. Finally, Section Three (Chapters 10-15) provides intervention strategies for helping a person (child or adult) with the visual brain characteristic of ASD to fit into an auditory culture.The strategies are language-based and take into consideration the complexity of the underlying biological learning system.

Develop and harness a powerful, sustainable word-of-mouth movement How did the 360-year-old scissor company, Fiskars, double its profit in key markets just by realizing its customers had already formed a community of avid scrapbookers? How is Best Buy planning to dominate the musical instruments market? By understanding the Brains on Fire model of tapping movements and stepping away from the old-school marketing "campaign" mentality. Brains on Fire offers original, practical and actionable steps for creating a word-of-mouth movement for corporations, products, services, and organizations. It takes you step-by-step through the necessary actions needed to start your own authentic movement. Develop and harness a powerful, sustainable, word-of-mouth movement Describes 10 lessons to master and create a powerful, sustainable movement The Brains on Fire blog is often ranked in the top 100 of AdAge's Power 150 Marketing Blogs

While most natural languages rely on speech, humans can spontaneously generate comparable linguistic systems that utilize manual gestures. This collection of papers examines the interaction between natural language and its phonetic vessels—human speech or manual gestures. We seek to identify what linguistic aspects are invariant across signed and spoken languages, and determine how the choice of the phonetic vessel shapes language structure, its processing and its neural implementation. We welcome rigorous empirical studies from a wide variety of perspectives, ranging from behavioral studies to brain analyses, diverse ages (from infants to adults), and multiple languages—both conventional and emerging home signs and sign languages.

Lending a Helping Hand to Hearing

Learning with a Visual Brain in an Auditory World

The Science of Early Childhood Development

More Than 200 Recipes to Energize Your Thinking, Boost YourMood, and Sharpen You r Memory

Igniting Powerful, Sustainable, Word of Mouth Movements

How the Modern Age Is Rewiring Your Mind

Intellectual Agency and Virtue Epistemology: A Montessori Perspective

How we raise young children is one of today's most highly personalized and sharply politicized issues, in part because each of us can claim some level of "expertise." The debate has intensified as discoveries about our development-in the womb and in the first months and years-have reached the popular media. How can we use our burgeoning knowledge to assure the well-being of all young children, for their own sake as well as for the sake of our nation? Drawing from new findings, this book presents important conclusions about nature-versus-nurture, the impact of being born into a working family, the effect of politics on programs for children, the costs and benefits of intervention, and other issues. The committee issues a series of challenges to decision makers regarding the quality of child care, issues of racial and ethnic diversity, the integration of children's cognitive and emotional development, and more. Authoritative yet accessible, From Neurons to Neighborhoods presents the evidence about "brain wiring" and how kids learn to speak, think, and regulate their behavior. It examines the effect of the climate-family, child care, community-within which the child grows.

Advances in the neurocognitive sciences, aided by increased imaging power, have extensively confirmed that during early development specific areas of a child's brain are designed to process specific functions -- neurologic, cognitive, linguistic, motoric, and visuospatial, among others -- and that this processing involves globally complex interconnections with other areas distributed throughout the brain: a lesion in a given area interferes with the functioning and coherence of the stem as a whole. This volume discusses the consequences of early brain injury to many parts of the brain, including the basal ganglia, with their related disorders of aphasia, OCD, and AD/HD, as well as white matter and its associated neuro-psychological impairment of intelligence, language, and visuoperception. The corpus callosum and cerebellum are studied as they relate to learning motor sequences and language as well as communication disorders and social behaviour. This book also looks at mirror neurons as they affect the understanding of others' intentions and the development of empathy and gestural and other forms of language. The implications of these findings are examined since they have a critical effect on the rehabilitative and educational efforts that are being designed to mitigate the effects of early brain lesions on the growing child.

At the age of twenty eight Gary was assaulted by a gang with baseball bats and a hammer, resulting in several skull fractures and severe brain damage. For nineteen months he had little awareness of his surroundings before he started to show some recovery. This inspirational book documents his exceptional journey. The book presents a series of interviews with Gary, his mother Wendie, who never gave up, the medical team who initially treated him, and the therapists who worked with him over a period of three years. Through their testimony we learn about the devastating effects which can follow a serious assault to the head, and the long process of recovery over several years. With specialist rehabilitation and continuing family support Gary has exceeded expectations and, apart from some minor physical problems, he is now a normal young man. Surviving Brain Damage after Assault shows that, contrary to popular belief, considerable gains can be made by people who have experienced a long period of reduced consciousness. The book will be of great value to all professionals working in rehabilitation - psychologists, speech and language therapists, occupational therapists, social workers and rehabilitation doctors, and to people who have sustained a brain injury and their families.

A psychologist shows how gestures rather than sounds formed the basis of language fundamentals, using evidence from anthropology, animal behavior, neurology, molecular biology, and anatomy to make his case.

Discovering the Brain

From Lucy's Thumb to the Thought-Controlled Robotic Hand

Encyclopedia of Language Development

The Brain Power Cookbook

A Guide to Clinical Management and Public Health Response for Hand, Foot, and Mouth Disease (HFMD)

Translational Pain Research

Discovering the BrainNational Academies Press