

Journal Of Neuroscience Impact Factor

History of Neurology Coordination Dynamics: Issues and Trends Frontiers in Chemistry: Rising Stars Music, Passion, and Cognitive Function Neural Networks for Optimization and Signal Processing The History of Neuroscience in Autobiography Visual Integration Network Neuroscience The Psychology of Pandemics Animal Models of Neurodevelopmental Disorders Neuroergonomics Mathog's Atlas of Craniofacial Trauma Behavioral Neurobiology of the Endocannabinoid System Current Protocols in Neuroscience The Claustrum The Cerebellum and Cognition Decision Neuroscience Brain-Computer Interfaces for Human Augmentation Psychogenic Nonepileptic Seizures Encyclopedia of Neuroscience Neurobiology of Language Lost Connections Cognitive Neuroscience of Language Networks of the Brain Population Neuroscience Analysis of Ordinal Categorical Data Kama Muta A History of Neuropsychology Psychiatry and Clinical Neuroscience Destructive Organizational Communication Ionic Channels of Excitable Membranes Information Systems and Neuroscience Controversies in Cognitive Neuroscience Translational Stroke Research Discovering the Human Connectome School Mental Health The Viagra Ad Venture The Politics of Violence, Truth and Reconciliation in the Arab Middle East The Journal of Neuroscience Encyclopedia of Behavioral Neuroscience

History of Neurology

When we're thinking about how the brain works, why do we believe that one explanation is better than another? Is the majority view necessarily the correct view? In *Controversies in Cognitive Neuroscience*, Scott Slotnick tackles the most contentious debates within the exciting and fast-paced field of cognitive neuroscience. Student-focused and sympathetically written, its deep engagement with cutting-edge debates will help you develop your critical thinking skills. Providing evidence from both sides of each debate, the book covers essential topics such as long-term memory, working memory, language, perception, and attention. By helping you to weigh up the evidence and choose the most compelling answer, *Controversies in Cognitive Neuroscience* will enhance your analytical skills. With its unique debate format and a wealth of illustrations, the book brings to life the key issues that are sparking debate within psychology and neuroscience.

Coordination Dynamics: Issues and Trends

Mathog's *Atlas of Craniofacial Trauma* covers a practical step-by-step approach of procedures to treat craniofacial fractures. This definitive book on surgery for craniofacial trauma covers a wide range of procedures that cross a number of specialties. Each procedure has been updated to reflect current methods being utilized today. Although the focus is on the facial skeleton, there are adequate presentations to orient the reader to vascular, central nervous system, dental, and ophthalmic injuries, which is important as most of these injuries cross specialties. This completely revised Second Edition will have multiple new chapters, including *Imaging of Craniofacial Fractures; Plates, Materials, and Instrumentation; Multidisciplinary Approach to Trauma; Free Flap Reconstruction of the Mandible.*

Frontiers in Chemistry: Rising Stars

Surprisingly, the most effortless act of humans, seeing the world, seems to come very slowly to us. Contrary to common belief, although important visual functions emerge during the first year of life, the completion of visual development extends until the end of childhood. During this long period of plasticity, the visual system is particularly prone to suffer irreversible changes due to abnormal perceptual experience. The collection of studies in this volume have the common theme of mapping normal and abnormal visual development in terms of cortical connectivity patterns. The maturity of cortical connections is estimated by measuring the capacity to spatially integrate local features across the visual field in normally developing children, amblyopics, schizophrenics, and people with Williams Syndrome. Aimed at researchers within the fields of developmental neuroscience, cognitive neuroscience, psychiatry, neurology and ophthalmology, this book will be an important first step in assess

Music, Passion, and Cognitive Function

In the last five to ten years, pressure for political liberalisation, and the growth of civil society and independent media, inside Arab countries have prompted the debate about violent events in the postcolonial period. This book features studies of six Arab countries in which legacies of political violence have been challenged through various initiatives to promote "truth-telling" and transitional justice. The analysis departs from a liberal, teleological understanding of truth and reconciliation as a linear process from trauma through memory to national healing. Instead, the articles highlight how the interplay between state-orchestrated initiatives (such as Truth and Reconciliation committees and ministerial committees); civil society actors (including former political prisoners, investigative journalists and NGOs); and external actors (such as transnational NGOs, state sponsored dialogue initiatives, the UN and the EU) is creating a new political field. The book examines the extent to which this field challenges the Arab nation-state's monopoly on history and violence, and asks whether public narratives of violence, memory and justice consolidate or challenge political legitimacy of current regimes. This book was published as a special issue of Mediterranean Politics.

Neural Networks for Optimization and Signal Processing

Handbook of Clinical Neurology: Volume 95 is the first of over 90 volumes of the handbook to be entirely devoted to the history of neurology. The book is a collection of historical materials from different neurology professionals. The book is divided into 6 sections and composed of 55 chapters organized around different aspects of the history of neurology. The first section presents the beginnings of neurology: ancient trepanation, its birth in Mesopotamia, ancient Egypt; the emergence of neurology in the biblical text and the Talmud; neurology in the Greco-Roman world and the period following Galen; neurological conditions in the European Middle Ages; and the development of neurology in the 17th and 18th centuries. The second section narrates the birth of localization theory; the beginning of neurology and histological applications, neuroanatomy, neurophysiology, surgical neurology and other anatomo-clinical methods. The third

section covers further development of the discipline, including methods of neurological illustration and hospitals in neurology and neurosurgery. This section also narrates the history of child neurology, neurodisability and neuroendocrinology. It also features the application of molecular biology on clinical neurology. The fourth section describes the dysfunctions of the nervous system and their history. The fifth and last section covers the regional landmarks of neurology and the different treatments and recovery. The text is informative and useful for neuroscience or neurology professional, researchers, clinical practitioners, mental health experts, psychiatrists, and academic students and scholars in neurology. * A comprehensive accounting of historical developments and modern day advancements in the field of neurology * State-of-the-art information on topics including brain damage and dysfunctions of the nervous system * New treatments and recovery methods from redundancy to vicariation and neural transplantation, amongst others

The History of Neuroscience in Autobiography

Studying brain networks has become a truly interdisciplinary endeavor, attracting students and seasoned researchers alike from a wide variety of academic backgrounds. What has been lacking is an introductory textbook that brings together the different fields and provides a gentle introduction to the major concepts and findings in the emerging field of network neuroscience. Network Neuroscience is a one-stop-shop that is of equal use to the neurobiologist, who is interested in understanding the quantitative methods employed in network neuroscience, and to the physicist or engineer, who is interested in neuroscience applications of mathematical and engineering tools. The book spans 27 chapters that cover everything from individual cells all the way to complex network disorders such as depression and autism spectrum disorders. An additional 12 toolboxes provide the necessary background for making network neuroscience accessible independent of the reader's background. Dr. Flavio Frohlich (www.networkneuroscientist.org) wrote this book based on his experience of mentoring dozens of trainees in the Frohlich Lab, from undergraduate students to senior researchers. The Frohlich lab (www.frohlichlab.org) pursues a unique and integrated vision that combines computer simulations, animal model studies, human studies, and clinical trials with the goal of developing novel brain stimulation treatments for psychiatric disorders. The book is based on a course he teaches at UNC that has attracted trainees from many different departments, including neuroscience, biomedical engineering, psychology, cell biology, physiology, neurology, and psychiatry. Dr. Frohlich has consistently received rave reviews for his teaching. With this book he hopes to make his integrated view of neuroscience available to trainees and researchers on a global scale. His goal is to make the book the training manual for the next generation of (network) neuroscientists, who will be fusing biology, engineering, and medicine to unravel the big questions about the brain and to revolutionize psychiatry and neurology. Easy-to-read, comprehensive introduction to the emerging field of network neuroscience Includes 27 chapters packed with information on topics from single neurons to complex network disorders such as depression and autism Features 12 toolboxes serve as primers to provide essential background knowledge in the fields of biology, mathematics, engineering, and physics

Visual Integration

Music, Passion, and Cognitive Function examines contemporary cognitive theories of music, why they cannot explain music's power over us, and the origin and evolution of music. The book presents experimental confirmations of the theory in psychological and neuroimaging research, discussing the parallel evolution of consciousness, musical styles, and cultures since Homer and King David. In addition, it explains that 'in much wisdom is much grief' due to cognitive dissonances created by language that splits the inner world. Music enables us to survive in this sea of grief, overcomes discomforts and stresses of acquiring new knowledge, and unifies the soul, hence the power of music. Provides a foundation of music theory Demonstrates how emotions motivate interaction between cognition and language Covers differentiation and synthesis in consciousness Compares the parallel evolution of music and cultures Examines the idea of music overcoming cognitive dissonances

Network Neuroscience

"This book related to fundamental recognitions that 1) children, adolescents, and families usually make no or very poor connections to specialty mental health (see Atkins et al. 1998; Catron, Harris, & Weiss, 1999), 2) schools are where children and youth are, and 3) many advantages accrue when education, mental health, and other youth-serving systems join together to better meet the mental health needs of students, in ways that reflect reducing and removing barriers to learning (Andis et al., 2002; Weist, 1997). National and global networks are increasingly recognizing the centrality of the SMH agenda as reflected in increasing funding, growing training opportunities, key policy initiatives, and an advancing research base that involves localities, states, regions and countries pursuing common themes"--

The Psychology of Pandemics

The Encyclopedia of the Neuroscience explores all areas of the discipline in its focused entries on a wide variety of topics in neurology, neurosurgery, psychiatry and other related areas of neuroscience. Each article is written by an expert in that specific domain and peer reviewed by the advisory board before acceptance into the encyclopedia. Each article contains a glossary, introduction, a reference section, and cross-references to other related encyclopedia articles. Written at a level suitable for university undergraduates, the breadth and depth of coverage will appeal beyond undergraduates to professionals and academics in related fields. Arranged alphabetically by title, the articles encompass 10 volumes, making this the authoritative reference for the field. * Provides comprehensive coverage of neuroscience in 10 volumes * 32 separate areas of neuroscience and neurology covered for breadth and depth of content * Language is accessible for undergraduates, depth appropriate for scientists * Authored and edited by world class researchers in neuroscience, followed by peer review * Extensive use of figures, tables, and color illustrations and photographs * Glossaries, further reading suggestions, and cross-references provide additional tools to understand material * Index provides opportunities to find entries under multiple relevant terms or find

related material easily * Available in print and online versions

Animal Models of Neurodevelopmental Disorders

This book describes a ubiquitous and potent emotion that has only rarely and recently been studied in any systematic manner. The words that come closest to denoting it in English are being moved or touched, having a heart-warming feeling, feeling nostalgic, feeling patriotic, or pride in family or team. In religious contexts when the emotion is intense, it may be labeled ecstasy, mystical rapture, burning in the bosom, or being touched by the Spirit. All of these are instances of what scientists now call 'kama muta' (Sanskrit, 'moved by love'). Alan Page Fiske shows that what evokes this emotion is the sudden creation, intensification, renewal, repair, or recall of a communal sharing relationship – when love ignites, or people feel newly connected. He explains the social, psychological, cultural, and likely evolutionary processes involved – and how they interlock. Kama muta is described as it manifests in diverse settings at many points in history across scores of cultures, in everyday experiences as well as the peak moments of life. The chapters illuminate the occurrence of kama muta in a range of contexts, including religion, oratory, literature, sport, social media, and nature. The book will be of interest to students and scholars from a number of disciplines who are interested in emotion or social relationships. Supplementary notes can be found online at: www.routledge.com/9780367220945

Neuroergonomics

The present day is witnessing an explosion of our understanding of how the brain works at all levels, in which complexity is piled on complexity, and mechanisms of astonishing elegance are being continually discovered. This process is most developed in the major areas of the brain, such as the cortex, thalamus, and striatum. The Claustrum instead focuses on a small, remote, and, until recently, relatively unknown area of the brain. In recent years, researchers have come to believe that the claustrum is concerned with consciousness, a bold hypothesis supported by the claustrum's two-way connections with nearly every other region of the brain and its seeming involvement with multisensory integrations—the hallmark of consciousness. The claustrum, previously in a humble position at the back of the stage, might in fact be the conductor of the brain's orchestra. The Claustrum brings together leading experts on the claustrum from the varied disciplines of neuroscience, providing a state-of-the-art presentation of what is currently known about the claustrum, promising lines of current research (including epigenetics), and projections of new lines of investigation on the horizon. Develops a unifying hypothesis about the claustrum's role in consciousness, as well as the integration of sensory information and other higher brain functions. Discusses the involvement of the claustrum with autism, schizophrenia, epilepsy, Alzheimer's disease, and Parkinson's disease Coverage of all aspects of the claustrum, from its evolution and development to promising new lines of research, including epigenetics, provides a platform and point of reference for future investigative efforts

Mathog's Atlas of Craniofacial Trauma

This volume provides an in-depth consideration of destructive communication in organizations -- including workplace bullying, racism, stress, and harassment. It brings together communication scholars from theoretical and applied perspectives to assess current understandings, explore ways to integrate theory and practice, identify areas for change, and outline a research agenda for the coming decade. Each chapter examines a specific aspect of destructive organizational communication, reviews existing theory and research about that communicative form or ideology, suggests fruitful possibilities for application, and suggests key areas for further study. As such, the book opens a dialogue among communication scholars that explores destructive communication in organizations and addresses the following key components: the central issues and concerns regarding destructive organizational communication, current scholarly contributions to both applied and theoretical understanding of these issues, approaches to integrate applied/experienced and theoretical/conceptual perspectives in ways that inform one another and improve organizational considerations for varied stakeholders, and suggestions for a future research agenda for those interested in ameliorating the destructive side of organizational communication. Overall, the collection provides a basic understanding of the different types of destructive communication in organizations, the processes through which these interactions occur, the consequences to individuals and organizations, and the potential for organizing in more constructive, civil ways. This volume will be an excellent resource for scholars and researcher studying organizational communication, and graduate and advanced undergraduate students in organizational communication. It will also resonate with managers dealing with hostile workplaces, and organizational members trying to understand their current experiences. The book will serve as an excellent textbook for advanced undergraduate and graduate courses in organizational communication.

Behavioral Neurobiology of the Endocannabinoid System

An integrative overview of network approaches to neuroscience explores the origins of brain complexity and the link between brain structure and function. Over the last decade, the study of complex networks has expanded across diverse scientific fields. Increasingly, science is concerned with the structure, behavior, and evolution of complex systems ranging from cells to ecosystems. In *Networks of the Brain*, Olaf Sporns describes how the integrative nature of brain function can be illuminated from a complex network perspective. Highlighting the many emerging points of contact between neuroscience and network science, the book serves to introduce network theory to neuroscientists and neuroscience to those working on theoretical network models. Sporns emphasizes how networks connect levels of organization in the brain and how they link structure to function, offering an informal and nonmathematical treatment of the subject. *Networks of the Brain* provides a synthesis of the sciences of complex networks and the brain that will be an essential foundation for future research.

Current Protocols in Neuroscience

This book is the second volume of autobiographical essays by distinguished senior neuroscientists; it is part of the first collection of neuroscience writing that is primarily autobiographical. As neuroscience is a young discipline, the contributors

to this volume are truly pioneers of scientific research on the brain and spinal cord. This collection of fascinating essays should inform and inspire students and working scientists alike. The general reader interested in science may also find the essays absorbing, as they are essentially human stories about commitment and the pursuit of knowledge. The contributors included in this volume are: Lloyd M. Beidler, Arvid Carlsson, Donald R. Griffin, Roger Guillemin, Ray Guillery, Masao Ito. Martin G. Larrabee, Jerome Lettvin, Paul D. MacLean, Brenda Milner, Karl H. Pribram, Eugene Roberts and Gunther Stent. Key Features * Second volume in a collection of neuroscience writing that is primarily autobiographical * Contributors are senior neuroscientists who are pioneers in the field

The Claustrum

This new, fully revised and expanded edition of *Ionic Channels of Excitable Membranes* includes new chapters on fast chemical synapses, modulation through G protein coupled receptors and second messenger systems, molecules cloning, site directed mutagenesis, and cell biology. It begins with the classical biophysical work of Hodgkin and Huxley and then weaves a description of the known ionic channels together with their biological functions. The book continues by developing the physical and molecular principles needed for explaining permeation, gating, pharmacological modification, and molecular diversity, and ends with a discussion of channel evolution. *Ionic Channels of Excitable Membranes* is written to be accessible and interesting to biological and physical scientists of all kinds.

The Cerebellum and Cognition

Is Newton's brain different from Rembrandt's? Does a mother's diet during pregnancy impact brain growth? Do adolescent peers leave a signature in the social brain? Does the way we live in our middle years affect how our brains age? To answer these and many other questions, we can now turn to population neuroscience. Population neuroscience endeavors to identify environmental and genetic factors that shape the function and structure of the human brain; it uses the tools and knowledge of genetics (and the "omics" sciences), epidemiology and neuroscience. This text attempts to provide a bridge spanning these three disciplines so that their practitioners can communicate easily with each other when working together on large-scale imaging studies of the developing, mature and aging brain. By understanding the processes driving variations in brain function and structure across individuals, we will also be able to predict an individual's risk of (or resilience against) developing a brain disorder. In the long term, the hope is that population neuroscience will lay the foundation for personalized preventive medicine and, in turn, reduce the burden associated with complex, chronic disorders of brain and body.

Decision Neuroscience

Psychogenic nonepileptic seizures (PNES) are attacks that mimic epileptic seizures, but are not caused by abnormal electrical discharges in the brain. Instead, PNES are typically considered involuntary expressions of distress, making diagnosis and treatment a challenge. Historically, patients are referred to neurologists who, after

completing a diagnostic work up, refer patients to mental health professionals, including psychiatrists, for treatment. For a number of reasons, this transition of care between specialists is often not successful, and this impacts patient treatment and outcomes. Psychogenic Nonepileptic Seizures: Toward the Integration of Care offers new insights into the practical diagnostic and treatment challenges faced by clinicians who manage this condition. This book covers the different stages of care, from the initial evaluation to long-term outcomes, and highlights the need to work collaboratively to provide patients with comprehensive care and improved outcomes. It provides up-to-date evidence and shares clinical expertise for the management of this challenging diagnosis that requires the expertise of a multi-disciplinary team. The authors provide a new framework on how to conceptualize and manage this disorder to more effectively address the needs of patients.

Brain-Computer Interfaces for Human Augmentation

THE INTERNATIONAL BESTSELLER 'A book that could actually make us happy'
SIMON AMSTELL 'This amazing book will change your life' ELTON JOHN 'One of the most important texts of recent years' BRITISH JOURNAL OF GENERAL PRACTICE 'Brilliant, stimulating, radical' MATT HAIG 'The more people read this book, the better off the world will be' NAOMI KLEIN 'Wonderful' HILLARY CLINTON 'Eye-opening' GUARDIAN 'Brilliant for anyone wanting a better understanding of mental health' ZOE BALL 'A game-changer' DAVINA MCCALL 'Extraordinary' DR MAX PEMBERTON 'Beautiful' RUSSELL BRAND Depression and anxiety are now at epidemic levels. Why? Across the world, scientists have uncovered evidence for nine different causes. Some are in our biology, but most are in the way we are living today. Lost Connections offers a radical new way of thinking about this crisis. It shows that once we understand the real causes, we can begin to turn to pioneering new solutions - ones that offer real hope.

Psychogenic Nonepileptic Seizures

This book presents the proceedings of the NeuroIS Retreat 2018, June 19-21, Vienna, Austria, reporting on topics at the intersection of Information Systems (IS) research, neurophysiology and the brain sciences. Readers will discover the latest findings from top scholars in the field of NeuroIS, which offer detailed insights on the neurobiology underlying IS behavior, essential methods and tools and their applications for IS, as well as the application of neuroscience and neurophysiological theories to advance IS theory.

Encyclopedia of Neuroscience

Language is one of our most precious and uniquely human capacities, so it is not surprising that research on its neural substrates has been advancing quite rapidly in recent years. Until now, however, there has not been a single introductory textbook that focuses specifically on this topic. Cognitive Neuroscience of Language fills that gap by providing an up-to-date, wide-ranging, and pedagogically practical survey of the most important developments in the field. It guides students through all of the major areas of investigation, beginning with fundamental aspects of brain structure and function, and then proceeding to cover

aphasia syndromes, the perception and production of speech, the processing of language in written and signed modalities, the meanings of words, and the formulation and comprehension of complex expressions, including grammatically inflected words, complete sentences, and entire stories. Drawing heavily on prominent theoretical models, the core chapters illustrate how such frameworks are supported, and sometimes challenged, by experiments employing diverse brain mapping techniques. Although much of the content is inherently challenging and intended primarily for graduate or upper-level undergraduate students, it requires no previous knowledge of either neuroscience or linguistics, defining technical terms and explaining important principles from both disciplines along the way.

Neurobiology of Language

A pioneer in the field outlines new empirical and computational approaches to mapping the neural connections of the human brain. Crucial to understanding how the brain works is connectivity, and the centerpiece of brain connectivity is the connectome, a comprehensive description of how neurons and brain regions are connected. In this book, Olaf Sporns surveys current efforts to chart these connections—to map the human connectome. He argues that the nascent field of connectomics has already begun to influence the way many neuroscientists collect, analyze, and think about their data. Moreover, the idea of mapping the connections of the human brain in their entirety has captured the imaginations of researchers across several disciplines including human cognition, brain and mental disorders, and complex systems and networks. Discovering the Human Connectome offers the first comprehensive overview of current empirical and computational approaches in this rapidly developing field.

Lost Connections

A topical introduction on the ability of artificial neural networks to not only solve online a wide range of optimization problems but also to create new techniques and architectures. Provides in-depth coverage of mathematical modeling along with illustrative computer simulation results.

Cognitive Neuroscience of Language

Networks of the Brain

The endocannabinoid signaling system is a key modulator of central nervous function. This volume, essential reading for interested neuroscientists, provides in-depth coverage of the roles of the endocannabinoid signaling system in the neurobiology of behavior.

Population Neuroscience

This volume sets a basis for effective translational research. Authored by experts in the field of translational stroke research, each chapter specifically addresses one

or more components of preclinical stroke research. The emphasis is placed on target identification and drug development using state-of-the-art in vitro and in vivo assays, in combination with in vitro toxicology assays, AMDE and clinical design.

Analysis of Ordinal Categorical Data

Since the FDA approved Viagra in March 1998, the «little blue pill» has been prescribed to over twenty million men. The *Viagra Ad Venture: Masculinity, Media, and the Performance of Sexual Health* chronicles the story of Viagra as reported in our nation's news outlets and promoted by Pfizer Pharmaceutical's marketing materials. In this critical discourse analysis, author Jay Baglia uses feminist and performance theory to uncover the meaning of Viagra and its relationship to performances of masculinity. At stake are the ways in which we construct normalcy, particularly as it relates to health, sexuality, gender, and the body. This book fits well in a variety of classes including gender studies, media studies, research methods, feminist theory, human sexuality, and health communication.

Kama Muta

The field of Brain-Computer Interfaces (BCIs) has grown rapidly in the last few decades, allowing the development of faster and more reliable assistive technologies based on direct links between the brain and an external device. Novel applications of BCIs have also been proposed, especially in the area of human augmentation, i.e., enabling people to go beyond human limitations in sensory, cognitive and motor tasks. Brain-imaging techniques, such as electroencephalography, have been used to extract neural correlates of various brain processes and transform them, via machine learning, into commands for external devices. Brain stimulation technology has allowed to trigger the activation of specific brain areas to enhance the cognitive processes associated to the task at hand, hence improving performance. BCIs have therefore extended their scope from assistive technologies for people with disabilities to neuro-tools for human enhancement. This Special Issue aims at showing the recent advances in BCIs for human augmentation, highlighting new results on both traditional and novel applications. These include, but are not limited to, control of external devices, communication, cognitive enhancement, decision making and entertainment.

A History of Neuropsychology

The *Frontiers in Chemistry* Editorial Office team are delighted to present the inaugural “*Frontiers in Chemistry: Rising Stars*” article collection, showcasing the high-quality work of internationally recognized researchers in the early stages of their independent careers. All *Rising Star* researchers featured within this collection were individually nominated by the Journal’s Chief Editors in recognition of their potential to influence the future directions in their respective fields. The work presented here highlights the diversity of research performed across the entire breadth of the chemical sciences, and presents advances in theory, experiment and methodology with applications to compelling problems. This Editorial features the corresponding author(s) of each paper published within this

important collection, ordered by section alphabetically, highlighting them as the great researchers of the future. The Frontiers in Chemistry Editorial Office team would like to thank each researcher who contributed their work to this collection. We would also like to personally thank our Chief Editors for their exemplary leadership of this article collection; their strong support and passion for this important, community-driven collection has ensured its success and global impact. Laurent Mathey, PhD Journal Development Manager

Psychiatry and Clinical Neuroscience

Decision Neuroscience addresses fundamental questions about how the brain makes perceptual, value-based, and more complex decisions in non-social and social contexts. This book presents compelling neuroimaging, electrophysiological, lesional, and neurocomputational models in combination with hormonal and genetic approaches, which have led to a clearer understanding of the neural mechanisms behind how the brain makes decisions. The five parts of the book address distinct but inter-related topics and are designed to serve both as classroom introductions to major subareas in decision neuroscience and as advanced syntheses of all that has been accomplished in the last decade. Part I is devoted to anatomical, neurophysiological, pharmacological, and optogenetics animal studies on reinforcement-guided decision making, such as the representation of instructions, expectations, and outcomes; the updating of action values; and the evaluation process guiding choices between prospective rewards. Part II covers the topic of the neural representations of motivation, perceptual decision making, and value-based decision making in humans, combining neurocomputational models and brain imaging studies. Part III focuses on the rapidly developing field of social decision neuroscience, integrating recent mechanistic understanding of social decisions in both non-human primates and humans. Part IV covers clinical aspects involving disorders of decision making that link together basic research areas including systems, cognitive, and clinical neuroscience; this part examines dysfunctions of decision making in neurological and psychiatric disorders, such as Parkinson's disease, schizophrenia, behavioral addictions, and focal brain lesions. Part V focuses on the roles of various hormones (cortisol, oxytocin, ghrelin/leptin) and genes that underlie inter-individual differences observed with stress, food choices, and social decision-making processes. The volume is essential reading for anyone interested in decision making neuroscience. With contributions that are forward-looking assessments of the current and future issues faced by researchers, Decision Neuroscience is essential reading for anyone interested in decision-making neuroscience. Provides comprehensive coverage of approaches to studying individual and social decision neuroscience, including primate neurophysiology, brain imaging in healthy humans and in various disorders, and genetic and hormonal influences on decision making. Covers multiple levels of analysis, from molecular mechanisms to neural-systems dynamics and computational models of how we make choices. Discusses clinical implications of process dysfunctions, including schizophrenia, Parkinson's disease, eating disorders, drug addiction, and pathological gambling. Features chapters from top international researchers in the field and full-color presentation throughout with numerous illustrations to highlight key concepts.

Destructive Organizational Communication

This book brings together scientists from all over the world who have defined and developed the field of Coordination Dynamics. Grounded in the concepts of self-organization and the tools of nonlinear dynamics, appropriately extended to handle informational aspects of living things, Coordination Dynamics aims to understand the coordinated functioning of a variety of different systems at multiple levels of description. The book addresses the themes of Coordination Dynamics and Dynamic Patterns in the context of the following topics: Coordination of Brain and Behavior, Perception-Action Coupling, Control, Posture, Learning, Intention, Attention, and Cognition.

Ionic Channels of Excitable Membranes

Neuroergonomics: The Brain at Work and in Everyday Life details the methodologies that are useful for keeping an ideal human-machine system up-to-date, along with information on how to prevent potential overload and minimize errors. It discusses neural measures and the proper methods and technologies to maximize performance, thus providing a resource for neuroscientists who want to learn more about the technologies and real-time tools that can help them assess cognitive and motivational states of human operators and close the loop for advanced human-machine interaction. With the advent of new and improved tools that allow monitoring of brain activity in the field and better identification of neurophysiological markers that can index impending overload or fatigue, this book is a timely resource on the topic. Includes neurobiological models to better understand risky decision-making and cognitive countermeasures, augmented cognition, and brain stimulations to enhance performance and mitigate human error. Features innovative methodologies and protocols using psychophysiological measurements and brain imaging techniques in realistic operational settings. Discusses numerous topics, including cognitive performance in psychological and neurological disorders, brain computer interfaces (BCI), and human performance monitoring in ecological conditions, virtual reality, and serious gaming.

Information Systems and Neuroscience

Statistical science's first coordinated manual of methods for analyzing ordered categorical data, now fully revised and updated, continues to present applications and case studies in fields as diverse as sociology, public health, ecology, marketing, and pharmacy. Analysis of Ordinal Categorical Data, Second Edition provides an introduction to basic descriptive and inferential methods for categorical data, giving thorough coverage of new developments and recent methods. Special emphasis is placed on interpretation and application of methods including an integrated comparison of the available strategies for analyzing ordinal data. Practitioners of statistics in government, industry (particularly pharmaceutical), and academia will want this new edition.

Controversies in Cognitive Neuroscience

Pandemics are large-scale epidemics that spread throughout the world. Virologists predict that the next pandemic could occur in the coming years, probably from some form of influenza, with potentially devastating consequences. Vaccinations, if

available, and behavioral methods are vital for stemming the spread of infection. However, remarkably little attention has been devoted to the psychological factors that influence the spread of pandemic infection and the associated emotional distress and social disruption. Psychological factors are important for many reasons. They play a role in nonadherence to vaccination and hygiene programs, and play an important role in how people cope with the threat of infection and associated losses. Psychological factors are important for understanding and managing societal problems associated with pandemics, such as the spreading of excessive fear, stigmatization, and xenophobia that occur when people are threatened with infection. This book offers the first comprehensive analysis of the psychology of pandemics. It describes the psychological reactions to pandemics, including maladaptive behaviors, emotions, and defensive reactions, and reviews the psychological vulnerability factors that contribute to the spreading of disease and distress. It also considers empirically supported methods for addressing these problems, and outlines the implications for public health planning.

Translational Stroke Research

Neurobiology of Language explores the study of language, a field that has seen tremendous progress in the last two decades. Key to this progress is the accelerating trend toward integration of neurobiological approaches with the more established understanding of language within cognitive psychology, computer science, and linguistics. This volume serves as the definitive reference on the neurobiology of language, bringing these various advances together into a single volume of 100 concise entries. The organization includes sections on the field's major subfields, with each section covering both empirical data and theoretical perspectives. "Foundational" neurobiological coverage is also provided, including neuroanatomy, neurophysiology, genetics, linguistic, and psycholinguistic data, and models. Foundational reference for the current state of the field of the neurobiology of language Enables brain and language researchers and students to remain up-to-date in this fast-moving field that crosses many disciplinary and subdisciplinary boundaries Provides an accessible entry point for other scientists interested in the area, but not actively working in it - e.g., speech therapists, neurologists, and cognitive psychologists Chapters authored by world leaders in the field - the broadest, most expert coverage available

Discovering the Human Connectome

Current Protocols in Neuroscience (CPN) draws from techniques in molecular neurobiology, neurophysiology, neuroanatomy, neuropharmacology, and behavioral neuroscience to meet the specific needs of researchers in the full range of disciplines that is involved in studying the brain, nervous system, and corresponding behaviors. The editorial board of CPN have assembled an outstanding range of methods to enable users to explore their fields in greater depth and branch into related areas. The one-volume, looseleaf manual features carefully edited techniques with authors' troubleshooting tips and helpful comments that come from extensive experience in using these procedures. Quarterly updates, filed into the looseleaf, keep you and your laboratory current with the latest developments in this rapidly changing field. The initial purchase includes one year of updates and then subscribers may renew their annual

subscriptions. Current Protocols publishes a family of laboratory manuals for bioscientists, including Molecular Biology, Immunology, Human Genetics, Protein Science, Cytometry, Cell Biology, Pharmacology, and Toxicology.

School Mental Health

Psychiatric disorders are brain disorders, reflecting dysfunction within and across neural networks. Advances in functional neuroimaging and cellular neuroscience offer hope of revolutionizing the approach to diagnosis and treatment of mental illnesses. This resource presents an introduction to network neuroscience and demonstrates the relationship of advances in this field to the future of psychiatry. Oxford Clinical Neuroscience is a comprehensive, cross-searchable collection of resources offering quick and easy access to eleven of Oxford University Press's prestigious neuroscience texts. Joining Oxford Medicine Online these resources offer students, specialists and clinical researchers the best quality content in an easy-to-access format.

The Viagra Ad Venture

Providing a spectrum of models that is reflective of the various species that can be utilized in experimentation on disorders across a broad range of developmental disabilities, this volume collects expert contributions involved in investigation of the causes, outcomes, treatment, and prevention. Animal Models of Neurodevelopmental Disorders explores models of perinatal hypoxia-ischemia/cerebral palsy and stroke, autism spectrum disorder, fetal alcohol syndrome, as well as mental retardation. Written in the popular Neuromethods series style, chapters include the kind of detail and key advice from the specialists needed to get successful results in your own laboratory. Practical and authoritative, Animal Models of Neurodevelopmental Disorders serves to introduce and entice those interested in better understanding and treating these disorders to the vital animal model world of investigation.

The Politics of Violence, Truth and Reconciliation in the Arab Middle East

Behavioral Neuroscientists study the behavior of animals and humans and the neurobiological and physiological processes that control it. Behavior is the ultimate function of the nervous system, and the study of it is very multidisciplinary. Disorders of behavior in humans touch millions of people's lives significantly, and it is of paramount importance to understand pathological conditions such as addictions, anxiety, depression, schizophrenia, autism among others, in order to be able to develop new treatment possibilities. Encyclopedia of Behavioral Neuroscience is the first and only multi-volume reference to comprehensively cover the foundation knowledge in the field. This three volume work is edited by world renowned behavioral neuroscientists George F. Koob, The Scripps Research Institute, Michel Le Moal, Université Bordeaux, and Richard F. Thompson, University of Southern California and written by a premier selection of the leading scientists in their respective fields. Each section is edited by a specialist in the relevant area. The important research in all areas of Behavioral Neuroscience is

covered in a total of 210 chapters on topics ranging from neuroethology and learning and memory, to behavioral disorders and psychiatric diseases. The only comprehensive Encyclopedia of Behavioral Neuroscience on the market Addresses all recent advances in the field Written and edited by an international group of leading researchers, truly representative of the behavioral neuroscience community Includes many entries on the advances in our knowledge of the neurobiological basis of complex behavioral, psychiatric, and neurological disorders Richly illustrated in full color Extensively cross referenced to serve as the go-to reference for students and researchers alike The online version features full searching, navigation, and linking functionality An essential resource for libraries serving neuroscientists, psychologists, neuropharmacologists, and psychiatrists

The Journal of Neuroscience

The Cerebellum and Cognition pulls together a preeminent group of authors. The cerebellum has been previously considered as a highly complex structure involved only with motor control. The cerebellum is essential to nonmotor functions, and recent research has revealed new medically important roles of the cerebellum and cognitive processes. Selected for inclusion in Doody's Core Titles 2013, an essential collection development tool for health sciences libraries Comprehensive coverage of cerebellum in motor control and cognition New developments regarding the cerebellum and motor systems Therapeutic implications of cerebellar contributions to cognition Preeminent group of contributors

Encyclopedia of Behavioral Neuroscience

Neuropsychology has become a very important aspect for neurologists in clinical practice as well as in research. Being a specialized field in psychology, its long history is based on different historical developments in brain science and clinical neurology. In this volume, we want to show how present concepts of neuropsychology originated and were established by outlining the most important developments since the end of the 19th century. The articles of this book that cover topics such as aphasia, amnesia and dementia show a great multicultural influence due to an editorship and authorship that spans all developmental initiatives in Europe, Asia, and America. This book gives a better understanding of the development of higher brain function studies and is an interesting read for neurologists, psychiatrists, psychologists, neurosurgeons, historians, and anyone else interested in the history of neuropsychology.

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