

principles of cognitive neuroscience second edition

[#cognitive neuroscience](#) [#neuroscience principles](#) [#brain function](#) [#second edition](#) [#human cognition](#)

Dive deep into the essential principles of cognitive neuroscience with this comprehensively updated second edition. Explore the intricate brain function and neural mechanisms underpinning human cognition, behavior, and perception. This authoritative resource is perfect for understanding core concepts in cognitive science and neuroscience principles, offering a clear pathway to mastering this dynamic field.

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Principles of Cognitive Neuroscience

This title informs readers at all levels about the growing canon of cognitive neuroscience, and makes clear the challenges that remain to be solved by the next generation.

The Student's Guide to Cognitive Neuroscience

Reflecting recent changes in the way cognition and the brain are studied, this thoroughly updated third edition of the best-selling textbook provides a comprehensive and student-friendly guide to cognitive neuroscience. Jamie Ward provides an easy-to-follow introduction to neural structure and function, as well as all the key methods and procedures of cognitive neuroscience, with a view to helping students understand how they can be used to shed light on the neural basis of cognition. The book presents an up-to-date overview of the latest theories and findings in all the key topics in cognitive neuroscience, including vision, memory, speech and language, hearing, numeracy, executive function, social and emotional behaviour and developmental neuroscience, as well as a new chapter on attention. Throughout, case studies, newspaper reports and everyday examples are used to help students understand the more challenging ideas that underpin the subject. In addition each chapter includes: Summaries of key terms and points Example essay questions Recommended further reading Feature boxes exploring interesting and popular questions and their implications for the subject. Written in an engaging style by a leading researcher in the field, and presented in full-color including numerous illustrative materials, this book will be invaluable as a core text for undergraduate modules in cognitive neuroscience. It can also be used as a key text on courses in cognition, cognitive neuropsychology, biopsychology or brain and behavior. Those embarking on research will find it an invaluable starting point and reference. The Student's Guide to Cognitive Neuroscience, 3rd Edition is supported by a companion website, featuring helpful resources for both students and instructors.

Principles of Behavioral and Cognitive Neurology

This thoroughly revised new edition of a classic book provides a clinically inspired but scientifically guided approach to the biological foundations of human mental function in health and disease. It includes authoritative coverage of all the major areas related to behavioral neurology, neuropsychology, and neuropsychiatry. Each chapter, written by a world-renowned expert in the relevant area, provides an introductory background as well as an up-to-date review of the most recent developments. Clinical relevance is emphasized but is placed in the context of cognitive neuroscience, basic neuroscience, and functional imaging. Major cognitive domains such as frontal lobe function, attention and neglect, memory, language, prosody, complex visual processing, and object identification are reviewed in detail. A comprehensive chapter on behavioral neuroanatomy provides a background for brain-behavior interactions in the cerebral cortex, limbic system, basal ganglia, thalamus, and cerebellum. Chapters on temperolimbic epilepsy, major psychiatric syndromes, and dementia provide in-depth analyses of these neurobehavioral entities and their neurobiological coordinates. Changes for this second edition include the reflection throughout the book of the new and flourishing alliance of behavioral neurology, neuropsychology, and neuropsychiatry with cognitive science; major revision of all chapters; new authorship of those on language and memory; and the inclusion of entirely new chapters on psychiatric syndromes and the dementias. Both as a textbook and a reference work, the second edition of *Principles of Behavioral and Cognitive Neurology* represents an invaluable resource for behavioral neurologists, neuropsychologists, neuropsychiatrists, cognitive and basic neuroscientists, geriatricians, physiatrists, and their students and trainees.

Essentials of Cognitive Neuroscience

Essentials of Cognitive Neuroscience guides undergraduate and early-stage graduate students with no previous neuroscientific background through the fundamental principles and themes in a concise, organized, and engaging manner. Provides students with the foundation to understand primary literature, recognize current controversies in the field, and engage in discussions on cognitive neuroscience and its future. Introduces important experimental methods and techniques integrated throughout the text. Assists student comprehension through four-color images and thorough pedagogical resources throughout the text. Accompanied by a robust website with multiple choice questions, experiment videos, fMRI data, web links and video narratives from a global group of leading scientists for students. For Instructors there are sample syllabi and exam questions.

Principles of Cognitive Neuroscience

This title informs readers at all levels about the growing canon of cognitive neuroscience, and makes clear the challenges that remain to be solved by the next generation.

Cognitive Neuroscience of Language

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.

Principles of Cognitive Neuroscience

Essentials of Cognitive Neuroscience introduces and explicates key principles and concepts in cognitive neuroscience in such a way that the reader will be equipped to critically evaluate the ever-growing body of findings that the field is generating. For some students this knowledge will be needed for

subsequent formal study, and for all readers it will be needed to evaluate and interpret reports about cognitive neuroscience research that make their way daily into the news media and popular culture. The book seeks to do so in a style that will give the student a sense of what it's like to be a cognitive neuroscientist: when confronted with a problem, how does one proceed? How does one read and interpret research that's outside of one's sub-area of specialization? How do two scientists advancing mutually incompatible models interrelate? Most importantly, what does it feel like to partake in the wonder and excitement of this most dynamic and fundamental of sciences?

Essentials of Cognitive Neuroscience

Fundamentals of Cognitive Neuroscience: A Beginner's Guide, Second Edition, is a comprehensive, yet accessible, beginner's guide on cognitive neuroscience. This text takes a distinctive, commonsense approach to help newcomers easily learn the basics of how the brain functions when we learn, act, feel, speak and socialize. This updated edition includes contents and features that are both academically rigorous and engaging, including a step-by-step introduction to the visible brain, colorful brain illustrations, and new chapters on emerging topics in cognition research, including emotion, sleep and disorders of consciousness, and discussions of novel findings that highlight cognitive neuroscience's practical applications. Written by two leading experts in the field and thoroughly updated, this book remains an indispensable introduction to the study of cognition. Presents an easy-to-read introduction to mind-brain science based on a simple functional diagram linked to specific brain functions Provides new, up-to-date, colorful brain images directly from research labs Contains "In the News" boxes that describe the newest research and augment foundational content Includes both a student and instructor website with basic terms and definitions, chapter guides, study questions, drawing exercises, downloadable lecture slides, test bank, flashcards, sample syllabi and links to multimedia resources

Fundamentals of Cognitive Neuroscience

The second edition of an essential resource to the evolving field of developmental cognitive neuroscience, completely revised, with expanded emphasis on social neuroscience, clinical disorders, and imaging genomics. The publication of the second edition of this handbook testifies to the rapid evolution of developmental cognitive neuroscience as a distinct field. Brain imaging and recording technologies, along with well-defined behavioral tasks—the essential methodological tools of cognitive neuroscience—are now being used to study development. Technological advances have yielded methods that can be safely used to study structure-function relations and their development in children's brains. These new techniques combined with more refined cognitive models account for the progress and heightened activity in developmental cognitive neuroscience research. The Handbook covers basic aspects of neural development, sensory and sensorimotor systems, language, cognition, emotion, and the implications of lifelong neural plasticity for brain and behavioral development. The second edition reflects the dramatic expansion of the field in the seven years since the publication of the first edition. This new Handbook has grown from forty-one chapters to fifty-four, all original to this edition. It places greater emphasis on affective and social neuroscience—an offshoot of cognitive neuroscience that is now influencing the developmental literature. The second edition also places a greater emphasis on clinical disorders, primarily because such research is inherently translational in nature. Finally, the book's new discussions of recent breakthroughs in imaging genomics include one entire chapter devoted to the subject. The intersection of brain, behavior, and genetics represents an exciting new area of inquiry, and the second edition of this essential reference work will be a valuable resource for researchers interested in the development of brain-behavior relations in the context of both typical and atypical development.

Handbook of Developmental Cognitive Neuroscience, second edition

Cognitive Development and Cognitive Neuroscience: The Learning Brain is a thoroughly revised edition of the bestselling *Cognitive Development*. The new edition of this full-colour textbook has been updated with the latest research in cognitive neuroscience, going beyond Piaget and traditional theories to demonstrate how emerging data from the brain sciences require a new theoretical framework for teaching cognitive development, based on learning. Building on the framework for teaching cognitive development presented in the first edition, Goswami shows how different cognitive domains such as language, causal reasoning and theory of mind may emerge from automatic neural perceptual processes. *Cognitive Neuroscience and Cognitive Development* integrates principles and data from cognitive science, neuroscience, computer modelling and studies of non-human animals into a model

that transforms the study of cognitive development to produce both a key introductory text and a book which encourages the reader to move beyond the superficial and gain a deeper understanding of the subject matter. Cognitive Development and Cognitive Neuroscience is essential for students of developmental and cognitive psychology, education, language and the learning sciences. It will also be of interest to anyone training to work with children.

Cognitive Development and Cognitive Neuroscience

Publisher's Note: Products purchased from Third Party sellers are not guaranteed by the publisher for quality, authenticity, or access to any online entitlements included with the product. The gold standard of neuroscience texts—updated with hundreds of brand-new images and fully revised content in every chapter With 300 new illustrations, diagrams, and radiology studies including PET scans, Principles of Neural Science, 6th Edition is the definitive guide for neuroscientists, neurologists, psychiatrists, students, and residents. Highly detailed chapters on stroke, Parkinson's, and MS build your expertise on these critical topics. Radiological studies the authors have chosen explain what's most important to know and understand for each type of stroke, progressive MS, or non-progressive MS. Features 2,200 images, including 300 new color illustrations, diagrams, and radiology studies (including PET scans) NEW: This edition now features only two contributors per chapter and are mostly U.S.-based NEW: Number of chapters streamlined down from 67 to 60 NEW: Chapter on Navigation and Spatial Memory NEW: New images in every chapter!

Principles of Neural Science, Sixth Edition

Cognition, Brain, and Consciousness, Second Edition, provides students and readers with an overview of the study of the human brain and its cognitive development. It discusses brain molecules and their primary function, which is to help carry brain signals to and from the different parts of the human body. These molecules are also essential for understanding language, learning, perception, thinking, and other cognitive functions of our brain. The book also presents the tools that can be used to view the human brain through brain imaging or recording. New to this edition are Frontiers in Cognitive Neuroscience text boxes, each one focusing on a leading researcher and their topic of expertise. There is a new chapter on Genes and Molecules of Cognition; all other chapters have been thoroughly revised, based on the most recent discoveries. This text is designed for undergraduate and graduate students in Psychology, Neuroscience, and related disciplines in which cognitive neuroscience is taught. New edition of a very successful textbook Completely revised to reflect new advances, and feedback from adopters and students Includes a new chapter on Genes and Molecules of Cognition Student Solutions available at <http://www.baars-gage.com/> For Teachers: Rapid adoption and course preparation: A wide array of instructor support materials are available online including PowerPoint lecture slides, a test bank with answers, and eFlashcards on key concepts for each chapter. A textbook with an easy-to-understand thematic approach: in a way that is clear for students from a variety of academic backgrounds, the text introduces concepts such as working memory, selective attention, and social cognition. A step-by-step guide for introducing students to brain anatomy: color graphics have been carefully selected to illustrate all points and the research explained. Beautifully clear artist's drawings are used to 'build a brain' from top to bottom, simplifying the layout of the brain. For students: An easy-to-read, complete introduction to mind-brain science: all chapters begin from mind-brain functions and build a coherent picture of their brain basis. A single, widely accepted functional framework is used to capture the major phenomena. Learning Aids include a student support site with study guides and exercises, a new Mini-Atlas of the Brain and a full Glossary of technical terms and their definitions. Richly illustrated with hundreds of carefully selected color graphics to enhance understanding.

Principles of Neural Science

Statistical approaches to processing natural language text have become dominant in recent years. This foundational text is the first comprehensive introduction to statistical natural language processing (NLP) to appear. The book contains all the theory and algorithms needed for building NLP tools. It provides broad but rigorous coverage of mathematical and linguistic foundations, as well as detailed discussion of statistical methods, allowing students and researchers to construct their own implementations. The book covers collocation finding, word sense disambiguation, probabilistic parsing, information retrieval, and other applications.

Cognition, Brain, and Consciousness

An essential guide to designing, conducting, and analyzing event-related potential (ERP) experiments, completely updated for this edition. The event-related potential (ERP) technique, in which neural responses to specific events are extracted from the EEG, provides a powerful noninvasive tool for exploring the human brain. This volume describes practical methods for ERP research along with the underlying theoretical rationale. It offers researchers and students an essential guide to designing, conducting, and analyzing ERP experiments. This second edition has been completely updated, with additional material, new chapters, and more accessible explanations. Freely available supplementary material, including several online-only chapters, offer expanded or advanced treatment of selected topics. The first half of the book presents essential background information, describing the origins of ERPs, the nature of ERP components, and the design of ERP experiments. The second half of the book offers a detailed treatment of the main steps involved in conducting ERP experiments, covering such topics as recording the EEG, filtering the EEG and ERP waveforms, and quantifying amplitudes and latencies. Throughout, the emphasis is on rigorous experimental design and relatively simple analyses. New material in the second edition includes entire chapters devoted to components, artifacts, measuring amplitudes and latencies, and statistical analysis; updated coverage of recording technologies; concrete examples of experimental design; and many more figures. Online chapters cover such topics as overlap, localization, writing and reviewing ERP papers, and setting up and running an ERP lab.

Foundations of Statistical Natural Language Processing

Cognitive Neuroscience and Psychotherapy provides a bionetwork theory unifying empirical evidence in cognitive neuroscience and psychopathology to explain how emotion, learning, and reinforcement affect personality and its extremes. The book uses the theory to explain research results in both disciplines and to predict future findings, as well as to suggest what the theory and evidence say about how we should be treating disorders for maximum effectiveness. While theoretical in nature, the book has practical applications, and takes a mathematical approach to proving its own theorems. The book is unapologetically physical in nature, describing everything we think and feel by way of physical mechanisms and reactions in the brain. This unique marrying of cognitive neuroscience and clinical psychology provides an opportunity to better understand both. Unifying theory for cognitive neuroscience and clinical psychology Describes the brain in physical terms via mechanistic processes Systematically uses the theory to explain empirical evidence in both disciplines Theory has practical applications for psychotherapy Ancillary material may be found at: <http://booksite.elsevier.com/9780124200715> including an additional chapter and supplements

An Introduction to the Event-Related Potential Technique, second edition

This book, a member of the Series in Affective Science, is a unique interdisciplinary sequence of articles on the cognitive neuroscience of emotion by some of the most well-known researchers in the area. It explores what is known about cognitive processes in emotion at the same time it reviews the processes and anatomical structures involved in emotion, determining whether there is something about emotion and its neural substrates that requires they be studied as a separate domain. Divided into four major focal points and presenting research that has been performed in the last decade, this book covers the process of emotion generation, the functions of amygdala, the conscious experience of emotion, and emotion regulation and dysregulation. Collectively, the chapters constitute a broad but selective survey of current knowledge about emotion and the brain, and they all address the close association between cognitive and emotional processes. By bringing together diverse strands of investigation with the aim of documenting current understanding of how emotion is instantiated in the brain, this book will be of use to scientists, researchers, and advanced students of psychology and neuroscience.

Cognitive Neuroscience and Psychotherapy

The updated third edition of 'Cognitive Assessment for Clinicians' is a theoretically-motivated guide to the assessment of patients with cognitive complaints.

Cognitive Neuroscience of Emotion

Cognitive Neuroscience: A Reader provides the first definitive collection of readings in this burgeoning area of study.

Cognitive Assessment for Clinicians

Organized to provide a background to the basic cellular mechanisms of memory and by the major memory systems in the brain, this text offers an up-to-date account of our understanding of how the brain accomplishes the phenomenology of memory.

Cognitive Neuroscience

This text, based on a course taught by Randall O'Reilly and Yuko Munakata over the past several years, provides an in-depth introduction to the main ideas in the computational cognitive neuroscience. The goal of computational cognitive neuroscience is to understand how the brain embodies the mind by using biologically based computational models comprising networks of neuronlike units. This text, based on a course taught by Randall O'Reilly and Yuko Munakata over the past several years, provides an in-depth introduction to the main ideas in the field. The neural units in the simulations use equations based directly on the ion channels that govern the behavior of real neurons, and the neural networks incorporate anatomical and physiological properties of the neocortex. Thus the text provides the student with knowledge of the basic biology of the brain as well as the computational skills needed to simulate large-scale cognitive phenomena. The text consists of two parts. The first part covers basic neural computation mechanisms: individual neurons, neural networks, and learning mechanisms. The second part covers large-scale brain area organization and cognitive phenomena: perception and attention, memory, language, and higher-level cognition. The second part is relatively self-contained and can be used separately for mechanistically oriented cognitive neuroscience courses. Integrated throughout the text are more than forty different simulation models, many of them full-scale research-grade models, with friendly interfaces and accompanying exercises. The simulation software (PDP++, available for all major platforms) and simulations can be downloaded free of charge from the Web. Exercise solutions are available, and the text includes full information on the software.

The Cognitive Neuroscience of Memory

This volume presents a short review study of the potential relationships between cognitive neuroscience and educational science. Conducted by order of the Dutch Programme Council for Educational Research of the Netherlands Organization for Scientific Research (NWO; cf. the American NSF), the review aims to identify: (1) how educational principles, mechanisms, and theories could be extended or refined based on findings from cognitive neuroscience, and (2) which neuroscience principles, mechanisms, or theories may have implications for educational research and could lead to new interdisciplinary research ventures. The contents should be seen as the outcome of the 'Explorations in Learning and the Brain' project. In this project, we started with a 'quick scan' of the literature that formed the input for an expert workshop that was held in Amsterdam on March 10–11, 2008. This expert workshop identified additional relevant themes and issues that helped us to update the 'quick scan' into this final document. In this way the input from the participants of the expert workshop (listed in Appendix A) has greatly influenced the present text. We are therefore grateful to the participants for their scholarly and enthusiastic contributions. The content of the current volume, however, is the full responsibility of the authors.

Computational Explorations in Cognitive Neuroscience

This thoroughly revised new edition of a classic book provides a clinically inspired but scientifically guided approach to the biological foundations of human mental function in health and disease. It includes authoritative coverage of all the major areas related to behavioral neurology, neuropsychology, and neuropsychiatry. Each chapter, written by a world-renowned expert in the relevant area, provides an introductory background as well as an up-to-date review of the most recent developments. Clinical relevance is emphasized but is placed in the context of cognitive neuroscience, basic neuroscience, and functional imaging. Major cognitive domains such as frontal lobe function, attention and neglect, memory, language, prosody, complex visual processing, and object identification are reviewed in detail. A comprehensive chapter on behavioral neuroanatomy provides a background for brain-behavior interactions in the cerebral cortex, limbic system, basal ganglia, thalamus, and cerebellum. Chapters on temperolimbic epilepsy, major psychiatric syndromes, and dementia provide in-depth analyses of these neurobehavioral entities and their neurobiological coordinates. Changes for this second edition include the reflection throughout the book of the new and flourishing alliance of behavioral neurology, neuropsychology, and neuropsychiatry with cognitive science; major revision of all chapters; new authorship of those on language and memory; and the inclusion of entirely new chapters on psychiatric syndromes and the dementias. Both as a textbook and a reference work, the second

edition of Principles of Behavioral and Cognitive Neurology represents an invaluable resource for behavioral neurologists, neuropsychologists, neuropsychiatrists, cognitive and basic neuroscientists, geriatricians, psychiatrists, and their students and trainees.

Explorations in Learning and the Brain

Introduction to computer modeling of the brain, to understand how people think. Networks of interacting neurons produce complex emergent behavior including perception, attention, motor control, learning, memory, language, and executive functions (motivation, decision making, planning, etc).

Principles of Behavioral and Cognitive Neurology

How does brain activity give rise to sleep, dreams, learning, memory, and language? Do drugs like cocaine and heroin tap into the same neurochemical systems that evolved for life's natural rewards? What are the powerful new tools of molecular biology that are revolutionizing neuroscience? This undergraduate textbook explores the relation between brain, mind, and behavior. It clears away the extraneous detail that so often impedes learning, and describes critical concepts step by step, in straightforward language. Rich illustrations and thought-provoking review questions further illuminate the relations between biological, behavioral, and mental phenomena. With writing that is focused and engaging, even the more challenging topics of neurotransmission and neuroplasticity become enjoyable to learn. While this textbook filters out non-critical details, it includes all key information, allowing readers to remain focused and enjoy the feeling of mastery that comes from a grounded understanding of a topic, from its fundamentals to its implications.

Computational Cognitive Neuroscience

This volume provides a comprehensive review of historical and current research on the function of the frontal lobes and frontal systems of the brain. The content spans frontal lobe functions from birth to old age, from biochemistry and anatomy to rehabilitation, and from normal to disrupted function. The book is intended to be a standard reference work on the frontal lobes for researchers, clinicians, and students in the field of neurology, neuroscience, psychiatry, psychology, and health care.

Principles of Behavioral Neuroscience

Now available in paperback, this updated new edition summarizes the latest developments in cognitive neuroscience related to rehabilitation, reviews the principles of successful interventions and synthesizes new findings about the rehabilitation of cognitive changes in a variety of populations. With greatly expanded sections on treatment and the role of imaging, it provides a comprehensive reference for those interested in the science, as well as including the most up-to-date information for the practising clinician. It provides clear and practical guidance on why cognitive rehabilitation may or may not work. How to use imaging methods to evaluate the efficacy of interventions. What personal and external factors impact rehabilitation success. How biological and psychopharmacological changes can be understood and treated. How to treat different disorders of language and memory, and where the field is going in research and clinical application.

Principles of Frontal Lobe Function

If you've ever been tricked by an optical illusion, you'll have some idea about just how clever the relationship between your eyes and your brain is. This book leads one through the intricacies of the subject and demystifying how we see.

Cognitive Neurorehabilitation

This fresh, new textbook provides a thorough and student-friendly guide to the different techniques used in cognitive neuroscience. Given the breadth of neuroimaging techniques available today, this text is invaluable, serving as an approachable text for students, researchers, and writers. This text provides the right level of detail for those who wish to understand the basics of neuroimaging and also provides more advanced material in order to learn further about particular techniques. With a conversational, student-friendly writing style, Aaron Newman introduces the key principles of neuroimaging techniques, the relevant theory and the recent changes in the field.

Basic Vision

Part I covers the history, principles, and methods of patient-based neuroscience: lesion method, imaging, computational modeling, and anatomy. Part II covers perception and vision: sensory agnosias, disorders of body perception, attention and neglect, disorders of perception and awareness, and misidentification syndromes. Part III covers language: aphasia, language disorders in children, specific language impairments, developmental dyslexia, acquired reading disorders, and aphasia. Part IV covers memory: amnesia and semantic memory impairments. Part V covers higher cognitive functions: frontal lobes, callosal disconnection (split brain), skilled movement disorders, acalculia, dementia, delirium, and degenerative conditions including Alzheimer's disease, Parkinson's disease, and Huntington's disease.

Research Methods for Cognitive Neuroscience

Anatomically, the central nervous system looks remarkably symmetrical--from the relatively simple structures of the spinal cord to the extensively convoluted folds of the cerebral hemispheres. At the functional level, however, there are striking differences between the left and right hemispheres. Although popular writings attribute language abilities to the left hemisphere and spatial abilities to the right, differences in hemispheric function appear to be more subtle. According to Ivry and Robertson, asymmetries over a wide range of perceptual tasks reflect a difference in strength rather than kind, with both hemispheres contributing to the performance of complex tasks, whether linguistic or spatial. After an historical introduction, the authors offer a cognitive neuroscience perspective on hemispheric specialization in perception. They propose that the two hemispheres differ in how they filter task-relevant sensory information. Building on the idea that the hemispheres construct asymmetric representations, the hypothesis provides a novel account of many laterality effects. A notable feature of the authors' work is their attempt to incorporate hemispheric specialization in vision, audition, music, and language within a common framework. In support of their theory, they review studies involving both healthy and neurologically impaired individuals. They also provide a series of simulations to demonstrate the underlying computational principles of their theory. Their work thus describes both the cognitive and neurological architecture of hemispheric asymmetries in perception.

Patient-based Approaches to Cognitive Neuroscience

Principles of Neurobiology presents the major concepts of neuroscience with an emphasis on how we know what we know. The text is organized around a series of key experiments to illustrate how scientific progress is made and helps upper-level undergraduate and graduate students discover the relevant primary literature. Written by a single author in

The Two Sides of Perception

"Neurobiology of Cognition and Behavior" is one of the initial textbooks of brain mapping in the field of cognitive neuroscience. This well-researched text by a leading expert in the field provides a foundational map of the human brain for cognition and behavior. This comprehensive map of essential human thinking and emotion is based on the explosion in the field of functional neuroimaging studies (fMRI, PET) in the normally functioning human brain. The approach of this text is to confirm the association of these brain regions by verifying that damage to the activated brain area results in a consistent deficit in the cognitive/behavioral operation under investigation. The approach used to form this view of mapping brain and cognition is based on cognitive neuroscience principles of defining dissociable, fine-grained cognitive units and associating these units with brain regions encoding for these units or aspects of the units from both functional imaging and lesion studies. These cognitive-brain relationships are incorporated into clinical syndromes to account for the behavior of these patients after a lesion occurs, with the added feature of presenting patient videos demonstrating the disrupted cognitive behaviors. This comprehensive textbook provides a framework of the basic architecture of cognition in the brain with this combination of activation and lesion study confirmation of the brain-behavior associations. This basic framework is useful for those students studying the interaction of cognitive science and neuroanatomy as well as being relevant to the experienced neuroscientist researcher or clinician.

Principles of Neurobiology

Market: Pharmacy and medical students; neuroscientists; neurologists; pharmacologists Updated edition has an attractive full-color design with more illustrations Includes numerous Fact Boxes to help reinforce learning

The Neurobiology of Cognition and Behavior

This book has been replaced by Social Psychology, Third Edition, ISBN 978-1-4625-4398-4.

Molecular Neuropharmacology

Updated thoroughly, this comprehensive text highlights the most important issues in cognitive neuroscience, supported by clinical applications.

Social Psychology, Second Edition

Since the turn of the twenty-first century, the psychology of emotion has grown to become its own field of study. Because the study of emotion draws inspiration from areas of science outside of psychology, including neuroscience, psychiatry, biology, genetics, computer science, zoology, and behavioral economics, the field is now often called emotion science or affective science. A subfield of affective science is affective neuroscience, the study of the emotional brain. This revised second edition of Psychology of Emotion reviews both theory and methods in emotion science, discussing findings about the brain; the function, expression, and regulation of emotion; similarities and differences due to gender and culture; the relationship between emotion and cognition; and emotion processes in groups. Comprehensive in its scope yet eminently readable, Psychology of Emotion serves as an ideal introduction for undergraduate students to the scientific study of emotion. It features effective learning devices such as bolded key terms, developmental details boxes, learning links, tables, graphs, and illustrations. In addition, a robust companion website offers instructor resources.

Cognitive Neuroscience

"The fourth edition of The Cognitive Neurosciences continues to chart new directions in the study of the biologic underpinnings of complex cognition - the relationship between the structural and physiological mechanisms of the nervous system and the psychological reality of the mind. The material in this edition is entirely new, with all chapters written specifically for it." --Book Jacket.

Psychology of Emotion

... features fully annotated surface views of the human brain, as well as interactive tools for dissection the central nervous system and viewing fully annotated cross-sections of preserved specimens and living subjects imaged by magnetic resonance ... it incorporates a comprehensive, visually-rich, searchable database of more than 500 neuranatomical terms that are concisely defined and visualized in photographs, magnetic resonance images, and illustrations.

The Cognitive Neurosciences

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