

Handbook Of Cognitive Neuropsychology What Deficits Reveal About The Human Mind

An authoritative, up-to-date survey of the state of the art in cognitive science, written for non-specialists.

A rich source of authoritative information that supports reading and study in the field of cognitive neuroscience, this two-volume handbook reviews the current state-of-the-science in all major areas of the field.

During the last three decades, there have been enormous advances in our understanding of the neural mechanisms of selective attention at the network as well as the cellular level. The Oxford Handbook of Attention brings together the different research areas that constitute contemporary attention research into one comprehensive and authoritative volume. In 40 chapters, it covers the most important aspects of attention research from the areas of cognitive psychology, neuropsychology, human and animal neuroscience, computational modelling, and philosophy. The book is divided into 4 main sections. Following an introduction from Michael Posner, the books starts by looking at theoretical models of attention. The next two sections are dedicated to spatial attention and non-spatial attention respectively. Within section 4, the authors consider the interactions between attention and other psychological domains. The last two sections focus on attention-related disorders, and finally, on computational models of attention. Aimed at both scholars and students, the Oxford Handbook of Attention provides a concise and state-of-the-art review of the current literature in this field.

"The book is a wonderful and much-needed addition to the corpus ofscientifically based literature on learning and learningdisabilities, especially reading disability." --Sally E. Shaywitz, MD Co-Director, Yale Center for the Study ofLearning and Attention and author of Overcoming Dyslexia A comprehensive reference on the theory and practice ofevidence-based school neuropsychology As new studies reveal disorders once thought behavioral orfunctional to be neurobiological or neurochemical in nature,clinical child neuropsychology has developed as an importantdiscipline for understanding and treating a variety of child andadolescent disorders. With neuropsychological assessment morewidely used in school settings than ever before, schoolpsychologists require greater knowledge of both the discipline andits application in a school environment. Bridging theory and practice, the Handbook of SchoolNeuropsychology provides critical information on neuroanatomy,assessment, and practical, evidence-based interventions for avariety of childhood neuropsychological difficulties anddisabilities. Featuring contributions from leading experts, thisgroundbreaking resource covers all aspects of schoolneuropsychology, from training and credentialing, assessment, andintervention to understanding and serving students with specificdisorders or diseases. This hands-on resource also features an appendix filled with usefultools, including a comprehensive neuropsychological questionnaire,sample neuropsychological evaluations, a list of associations, aswell as sample neuropsychologically based IEPs. The text presents the material in five sections, covering: * Foundations of school neuropsychological practice * Development, structure, and functioning of the brain * Neuropsychological assessment for intervention * Understanding and serving learners with diseases and disordersand from special populations * Neuropsychological interventions in schools The most comprehensive reference on the theory and practice ofschool neuropsychology, the Handbook of School Neuropsychology isan indispensable tool for school and child psychologists, spcialeducation professionals, and students in both fields.

An Embodied Approach

International Handbook of Cross-Cultural Neuropsychology

Handbook on the Neuropsychology of Traumatic Brain Injury

Handbook of Medical Neuropsychology

A Pocket Handbook for Assessment

The Handbook of Cognitive Science provides an overview of recent developments in cognition research, relying upon non-classical approaches. Cognition is explained as the continuous interplay between brain, body, and environment, without relying on classical notions of computations and representation to explain cognition. The handbook serves as a valuable companion for readers interested in foundational aspects of cognitive science, and neuroscience and the philosophy of mind. The handbook begins with an introduction to embodied cognitive science, and then breaks up the chapters into separate sections on conceptual issues, formal approaches, embodiment in perception and action, embodiment from an artificial perspective, embodied meaning, and emotion and consciousness. Contributors to the book represent research overviews from around the globe including the US, UK, Spain, Germany, Switzerland, France, Sweden, and the Netherlands.

The Handbook of Cognition provides a definitive synthesis of the most up-to-date and advanced work in cognitive psychology in a single volume. The editors have gathered together a team of world-leading researchers in specialist areas of the field, both traditional and 'hot' new areas, to present a benchmark - in terms of theoretical insight and advances in methodology - of the discipline; a thorough overview of the most significant and current research in cognitive psychology that will serve this academic community like no other volume. Core and established topics such as memory, attention, categorization, perception, and language are considered in depth, and from a fresh perspective, yet three chapters on cognitive neuroscience and two chapters on computational and mathematical modelling are a particularly innovative feature of this Handbook. The Handbook is divided into the following sections: Section I: Perception, Attention and Action Section II: Learning and Memory Section III: Language Section IV: Reasoning and Decision-Making Section V: Cognitive Neuropsychology Section VI: Modelling Cognition Coherent, authoritative, international and accessible to both advanced students as well as researchers, the Handbook of Cognition represents a guided tour of the research literature in cognitive psychology and cognitive science. Whether an established researcher in this field, or someone approaching it for the first time at a senior level, this volume will be indispensable reading and a reference for many years to come.

The creation and consolidation of a memory can rest on the integration of any number of possibly disparate features and contexts - colour, sound, emotion, arousal, context. How is it that these bind together to form a coherent memory? What is the role of binding in memory formation? What are the neural processes that underlie binding? Do these binding processes change with age? This book offers an unrivalled overview of one of the most debated hotspots of modern memory research: binding. It contains 28 chapters on binding in different domains of memory, presenting classic research from the field of cognitive neuroscience. It is written by renowned scientists and leaders in the field who have made fundamental contributions to the rapidly expanding field of neurocognitive memory research. As well as presenting a state-of-the-art account of recent views on binding and its importance for remembering, it also includes a review of recent publications in the area, of benefit to both students and active researchers. More than just a survey, it supplies the reader with an integrative view on binding in memory, fostering deep insights not only into the processes and their determinants, but also into the neural mechanisms enabling these processes. The content also encompasses a wide range of binding-related topics, including feature binding, the binding of items and contexts during encoding and retrieval, the specific roles of familiarity and recollection, as well as task- and especially age-related changes in these processes. A major section is dedicated to in-depth analyses of underlying neural mechanisms, focusing on both medial temporal and prefrontal structures. Computational approaches are covered as well. For all students and researchers in memory, the book will not only enhance their understanding of binding, but will instigate innovative and pioneering ideas for future research.

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.

Neuropsychological Rehabilitation

Handbook of Cognitive Neuroscience

The Wiley Handbook on The Cognitive Neuroscience of Memory

The Handbook of Clinical Neuropsychology

Clinical Neuropsychology

Covering basic theory, new research, and intersections with adjacent fields, this is the first comprehensive reference work on cognitive control – our ability to use internal goals to guide thought and behavior. Draws together expert perspectives from a range of disciplines, including cognitive psychology, neuropsychology, neuroscience, cognitive science, and neurology Covers behavioral phenomena of cognitive control, neuroanatomical and computational models of frontal lobe function, and the interface between cognitive control and other mental processes Explores the ways in which cognitive control research can inform and enhance our understanding of brain development and neurological and psychiatric conditions

Neuropsychological assessment is a difficult and complicated process. Often, experienced clinicians as well as trainees and students gloss over fundamental problems or fail to consider potential sources of error. Since formal test data on the surface appear unambiguous and objective, they may fall into the habit of overemphasizing tests and their scores and underemphasizing all the factors that affect the validity, reliability, and interpretability of test data. But interpretation is far from straightforward, and a pragmatic application of assessment results requires attention to a multitude of issues. This long-awaited, updated, and greatly expanded second edition of the Clinician's Guide to Neuropsychological Assessment, like the first, focuses on the clinical practice of neuropsychology. Orienting readers to the entire multitude of issues, it guides them step by step through evaluation and helps them avoid common misconceptions, mistakes, and methodological pitfalls. It is divided into three sections: fundamental elements of the assessment process; special issues, settings, and populations; and new approaches and methodologies. The authors, all of whom are actively engaged in the clinical practice of neuropsychological assessment, as well as in teaching and research, do an outstanding job of integrating the academic and the practical. The Clinician's Guide to Neuropsychological Assessment, Second Edition will be welcomed as a text for graduate courses but also as an invaluable hands-on handbook for interns, postdoctoral fellows, and experienced neuropsychologists alike. No other book offers its combination of breadth across batteries and approaches, depth, and practicality.

This is a comprehensive undergraduate textbook which provides, in a single volume, chapters on both normal cognitive function and related clinical disorder.

A large part of the contemporary cognitive neuroscience literature involves functional neuroimaging, yet few readers are sufficiently familiar with it to appraise that literature correctly. The purpose of this Handbook is to enable them to understand the neuroimaging methods and evaluate their present contributions and future promise in the fields of cognitive neuroscience and neuropsychology. The chapters contain very accessible descriptions of the various methodsand an objective account of their clinical and research applications.

The Oxford Handbook of Cognitive Neuroscience, Volume 1

Handbook of the Neuroscience of Aging

Handbook of Categorization in Cognitive Science

The Wiley Handbook of Cognitive Control

Applications of Cognitive Neuroscience

"Neuropsychologists consult in diverse health care settings, such as emergency care, oncology, infectious disease, cardiology, neurosurgery, and psychiatry. A pocket reference is a critical resource for interns, postdoctoral fellows, and practicing clinicians alike. With over 100 quick-reference tables, lists, diagrams, photos, and decision trees, this handbook offers guidance through the complicated work of assessment, diagnosis, and treatment. This new edition of Clinical Neuropsychology builds on the success of the best-selling first edition by adding information on how to use and interpret cutting-edge neuroimaging technologies and how to integrate pharmacological approaches into treatment. The reader will also find new chapters on neuro-oncology, schizophrenia, late-life depression, and adult attention-deficit/hyperactivity disorder"--Cover.

The prevalence of adult cognitive disorders will dramatically rise over the next 25 years due to the aging population. Clinical research on adult cognitive disorders has rapidly evolved, including evidence of new adult cognitive disorders and greater insight into the clinical presentation, mechanism, diagnosis, and treatment of established diseases. The Oxford Handbook of Adult Cognitive Disorders is an up-to-date, scholarly, and comprehensive volume covering most diseases, conditions, and injuries resulting in impairments in cognitive function in adults. Topics covered include normal cognitive and brain aging, the impact of medical disorders and psychiatric illnesses on cognitive function, adult neurodevelopmental disorders, and various neurological conditions. This Handbook also provides a section on unique perspectives and special considerations for clinicians and clinical researchers, covering topics such as cognitive reserve, genetics, diversity, and neuroethics. Readers will be able to draw upon this volume to facilitate clinical practice (including differential diagnosis, treatment recommendations, assessment practices), and to obtain an in-depth review of current research across a wide spectrum of disorders, provided by leaders in their fields. The Oxford Handbook of Adult Cognitive Disorders is a one-of-a kind resource appropriate for both clinicians and clinical researchers, from advanced trainees to seasoned professionals.

This is a thorough revision and updating of the extremely successful third edition. As in previous editions, the following three perspectives are considered in depth: experimental cognitive psychology; cognitive science, with its focus on cognitive modelling; and cognitive neuropsychology with its focus on cognition following brain damage. In addition, and new to this edition, is detailed discussion of the cognitive neuroscience perspective, which uses advanced brain-scanning techniques to clarify the functioning of the human brain. There is detailed coverage of the dynamic impact of these four perspectives on the main areas of cognitive psychology, including perception, attention, memory, knowledge representation, categorisation, language, problem-solving, reasoning, and judgement. The aim is to provide comprehensive coverage that is up-to-date, authoritative, and accessible. All existing chapters have been extensively revised and re-organised. Some of the topics receiving much greater coverage in this edition are: brain structures in perception, visual attention, implicit learning, brain structures in memory, prospective memory, exemplar theories of categorisation, language comprehension, connectionist models in perception, neuroscience studies of thinking, judgement, and decision making. Cognitive Psychology: A Students Handbookwill be essential reading for undergraduate students of psychology. It will also be of interest to students taking related courses in computer science, education, linguistics, physiology, and medicine.

With the aging of the baby boomers and medical advances that promote longevity, older adults are rapidly becoming the fastest growing segment of the population. As the population ages, so does the incidence of age related disorders. Many predict that 15% - 20% of the baby-boomer generation will develop some form of cognitive decline over the course of their lifetime, with estimates escalating to up to 50% in those achieving advanced age. Although much attention has been directed at Alzheimer ' s disease, the most common form of dementia, it is estimated that nearly one third of those cases of cognitive decline result from other neuropathological mechanisms. In fact, many patients diagnosed with Alzheimer ' s disease likely have co-morbid disorders that can also influence cognition (i.e., vascular cognitive impairment), suggesting mixed dementias are grossly under diagnosed. The Clinical Handbook on the Neuropsychology of Aging and Dementia is a unique work that provides clinicians with expert guidance and a hands-on approach to neuropsychological practice with older adults. The book will be divided into two sections, the first addressing special considerations for the evaluation of older adults, and the second half focusing on common referral questions likely to be encountered when working with this age group. The authors of the chapters are experts and are recognized by their peers as opinion leaders in their chosen chapter topics. The field of neuropsychology has played a critical role in developing methods for early identification of late life cognitive disorders as well as the differential diagnosis of dementia. Neuropsychological assessment provides valuable clinical information regarding the nature and severity of cognitive symptoms associated with dementia. Each chapter will reinforce the notion that neuropsychological measures provide the clinician with sensitive tools to differentiate normal age-related cognitive decline from disease-associated impairment, aid in differential diagnosis of cognitive dysfunction in older adults, as well as identify cognitive deficits most likely to translate into functional impairments in everyday life.

Handbook of School Neuropsychology

Cognitive Psychology

The Handbook of Mathematical Cognition

Handbook of Cognitive Science

Handbook of Developmental Cognitive Neuroscience, second edition

The Handbook views neurological assessment and rehabilitation from different perspectives, offering opportunities for increasing knowledge, understanding and improving clinical skills, as well as laying the groundwork for establishing internationa

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.

This volume reviews the full range of cognitive domains that have benefited from the study of deficits. Chapters covered include language, memory, object recognition, action, attention, consciousness and temporal cognition.

Previous editions have established this best-selling student handbook as THE cognitive psychology textbook of choice, both for its academic rigour and its accessibility. This sixth edition continues this tradition. It has been substantially updated and revised to reflect new developments in the field (especially within cognitive neuroscience). Traditional approaches are combined with the cutting-edge cognitive neuroscience approach to create a comprehensive, coherent and totally up-to-date overview of all the main fields in cognitive psychology. The major topics covered include perception, attention, memory, concepts, language, problem solving, and reasoning, as well as some applied topics such as everyday memory. New to this edition: Presented in full-colour throughout, with numerous colour illustrations including photographs and brain scans Increased emphasis on cognitive neuroscience, to reflect its growing influence on cognitive psychology A NEW chapter on Cognition and Emotion A WHOLE chapter on Consciousness Increased coverage of applied topics such as recovered memories, medical expertise, informal reasoning, and emotion regulation incorporated throughout the textbook More focus on individual differences in areas including long-term memory, expertise, reasoning, emotion and regulation. The textbook is packed full of useful features that will engage students and aid revision, including key terms, which are new to this edition, chapter summaries, and suggestions for further reading. Written by one of the leading textbook authors in psychology, this thorough and user-friendly textbook will continue to be essential reading for all undergraduate students of psychology. Those taking courses in computer science, education, linguistics, physiology, and medicine will also find it an invaluable resource. This edition is accompanied by a rich array of supplementary materials, which will be made available to qualifying adopters completely free of charge. The online multimedia materials include: A PowerPoint lecture course and multiple-choice question test bank A unique Student Learning Program: an interactive revision program incorporating a range of multimedia resources including interactive exercises and demonstrations, and active reference links to journal articles.

Processes and Disorders

The Student's Guide to Cognitive Neuroscience

Handbook of Cognitive Neuropsychology

Core Topics

Clinician's Guide To Neuropsychological Assessment

This is one of a two-volume work on neurocognitive development, focusing separately on normative and non-normative development. The normative volume focuses on neurology, biology, genetics, and psychology of normative cognitive development. It covers the development of intellectual abilities, visual perception, motor function, language, memory, attention, executive function, social cognition, learning abilities, and affect and behavior. The book identifies when and how these functions develop, the genetics and neurophysiology of their operation, and their evaluation and assessment in clinical practice. This book will serve as a comprehensive reference to researchers in cognitive development in neuroscience, psychology, and medicine, as well as to clinicians and allied health professionals focused on developmental disabilities (child neurologists, pediatric neuropsychologists, child psychiatrists, speech and language therapists, and occupational therapists.) Summarizes research on normative neurocognitive development Includes intellectual abilities, language, memory, attention, motor function, and more Discusses genetics and environmental influences on development Provides interdisciplinary information of use to both researchers and clinicians

The domain of neuroscience has had one of the most explosive growths in recent decades: within this development there has been a remarkable and renewed interest in the study of the relations between behaviour and the central nervous system. Part of this new attention is connected with the contribution of new technologies (PET, fMRI) permitting more precise mapping of neural structures responsible for cognitive functions and the development of new theoretical models of mental activities. The diffusion of new pathologies (for example the pattern of cognitive impairment associated with AIDS) has further enlarged the field of clinical neuropsychology. Finally there has been an expanding clinical interest in the understanding and management of age-related cognitive changes. This volume is the translated and updated version of the second edition of Manuale di Neuropsicologia (Zanichelli, 1996), by the same authors, and it reflects the current status of the art. It is intended to blend clinical and theoretical aspects of neuropsychology. The first part discusses the instrumental and clinical methods of investigation in neuropsychology, together with their development. A long section is dedicated to the language and memory disorders. The impairment of non-verbal cognitive functions, such as the disorders of space orientation, of of visuo-perceptive abilities, and of the emotions and attention, are extensively discussed. The pattern of degenerative dementias is thoroughly described, as e is thoroughly described, as well as a number of new topics, such as a neuropsychological approach to consciousness. Finally, perspectives for treatment of some cognitive disorders are outlined.

A new edition of the essential resource on using functional neuroimaging techniques to study the neural basis of cognition, revised with the student in mind; thoroughly updated, with new chapters on fMRI physics, skill learning, emotion and social cognition, and other topics. This essential resource on neuroimaging provides an accessible and user-friendly introduction to the field written by leading researchers. The book describes theoretical and methodological developments in the use of functional neuroimaging techniques to study the neural basis of cognition, from early scientific efforts to link brain and behavior to the latest applications of fMRI and PET methods. The core of the book covers fMRI and PET studies in specific domains: attention, skill learning, semantic memory, language, episodic memory, working memory, and executive functions. By introducing a technique within the description of a domain, the book offers a clear explanation of the process while highlighting its biological context. The emphasis on readability makes Handbook of Functional Neuroimaging of Cognition ideal for classroom use in advanced undergraduate and graduate courses in cognitive neuroscience. This second edition has been completely updated to reflect new developments in the field, with existing chapters rewritten and new chapters added to each section. The section on history and methods now includes a chapter on the crucial topic of the physics of functional neuroimaging; the chapters on skill learning and executive functions are new to the domain section; and chapters on childhood development and emotion and social cognition have been added to the section on developmental, social, and clinical applications. The color insert has been increased in size, enhancing the visual display of representative findings. Contributors Todd S. Braver, Jeffrey Browndyke, Roberto Cabeza, B.J. Casey, Jody Culham, Clayton E. Curtis, Mark D'Esposito, Sander Daseelaar, Lila Davachi, Ian Dobbins, Karl J. Friston, Barry Giesbrecht, Todd C. Handy, Joseph B. Hopfinger, Scott A. Huettel, Irene P. Kan, Alan Kingstone, Eleni Kotsoni, Kevin S. LaBar, George R. Mangun, Gregory McCarthy, Uta Noppeney, Robyn T. Oliver, Elizabeth A. Phelps, Russel A. Poldrack, Cathy J. Price, Marcus E. Raichle, Hannes Ruge, Gaia Scerif, Allen W. Song, Sharon L. Thompson-Schill, Daniel T. Willingham, Richard J.S. Wise

The Handbook of Cognition provides a definitive synthesis of the most up-to-date and advanced work in cognitive psychology in a single volume. The editors have gathered together a team of world-leading researchers in specialist areas of the field, both traditional and 'hot' new areas, to present a benchmark - in terms of theoretical insight and advances in methodology - of the discipline. This book contains a thorough overview of the most significant and current research in cognitive psychology that will serve this academic community like no other volume.

The Oxford Handbook of Adult Cognitive Disorders

Neurocognitive Development: Normative Development

The Cambridge Handbook of Cognitive Science

Handbook of Normative Data for Neuropsychological Assessment

Handbook of Cognitive, Social, and Neuropsychological Aspects of Learning Disabilities

This book collects and synthesizes the latest thinking on the condition in its variety of cognitive and behavioral presentations, matched by a variety of clinical responses. Acknowledging the continuum of injury and the multi-stage nature of recovery, expert contributors review salient research data and offer clinical guidelines for the neuropsychologist working with TBI patients, detailing key areas of impairment, brief and comprehensive assessment methods and proven rehabilitation strategies. Taken together, these chapters provide a framework for best serving a wide range of TBI patients (including children, elders, and patients in multidisciplinary settings) and model treatment that is evidence-based and relevant. A sample of the topics featured in the Handbook: Bedside evaluations in TBI. Outcome assessment in TBI. Collaborating with family caregivers in the rehabilitation of persons with TBI. Behavioral assessment of acute neurobehavioral syndromes to inform treatment. Pediatric TBI: assessment, outcomes, intervention. Special issues with mild TBI in veterans and active duty service members. Expanding professional knowledge on a topic that continues to grow in importance, the Handbook on the Neuropsychology of Traumatic Brain Injury is a premier resource, not only for neuropsychologists but also for other professionals in cognitive care, and trainees entering the field.

How do we understand numbers? Do animals and babies have numerical abilities? Why do some people fail to grasp numbers, and how we can improve numerical understanding? Numbers are vital to so many areas of life: in science, economics, sports, education, and many aspects of everyday life from infancy onwards. Numerical cognition is a vibrant area that brings together scientists from different and diverse research areas (e.g., neuropsychology, cognitive psychology, developmental psychology, comparative psychology, anthropology, education, and neuroscience) using different methodological approaches (e.g., behavioral studies of healthy children and adults and of patients; electrophysiology and brain imaging studies in humans; single-cell neurophysiology in non-human primates, habituation studies in human infants and animals, and computer modeling). While the study of numerical cognition had been relatively neglected for a long time, during the last decade there has been an explosion of studies and new findings. This has resulted in an enormous advance in our understanding of the neural and cognitive mechanisms of numerical cognition. In addition, there has recently been increasing interest and concern about pupils' mathematical achievement in many countries, resulting in attempts to use research to guide mathematics instruction in schools, and to develop interventions for children with mathematical difficulties. This handbook brings together the different research areas that make up the field of numerical cognition in one comprehensive and authoritative volume. The chapters provide a broad and extensive review that is written in an accessible form for scholars and students, as well as educationalists, clinicians, and policy makers. The book covers the most important aspects of research on numerical cognition from the areas of development psychology, cognitive psychology, neuropsychology and rehabilitation, learning disabilities, human and animal cognition and neuroscience, computational modeling, education and individual differences, and philosophy. Containing more than 60 chapters by leading specialists in their fields, the Oxford Handbook of Numerical Cognition is a state-of-the-art review of the current literature.

This text introduces contemporary topics such as cognitive neuropsychology, connectionism and cognition and emotion. This edition includes a new chapter on judgement and decision-making.

*A single volume of 85 articles, the Handbook of the Neurobiology of Aging is an authoritative selection of relevant chapters from the Encyclopedia of Neuroscience, the most comprehensive source of neuroscience information assembled to date (AP Oct 2008). The study of neural aging is a central topic in neuroscience, neuropsychology and gerontology. Some well-known age-related neurological diseases include Parkinson's and Alzheimer's, but even more common are problems of aging which are not due to disease but to more subtle impairments in neurobiological systems, including impairments in vision, memory loss, muscle weakening, and loss of reproductive functions, changes in body weight, and sleeplessness. As the average age of our society increases, diseases of aging become more common and conditions associated with aging need more attention by doctors and researchers. This book offers an overview of topics related to neurobiological impairments which are related to the aging brain and nervous system. Coverage ranges from animal models to human imaging, fundamentals of age-related neural changes and pathological neurodegeneration, and offers an overview of structural and functional changes at the molecular, systems, and cognitive levels. Key pathologies such as memory disorders, Alzheimer's, dementia, Down syndrome, Parkinson's, and stroke are discussed, as are cutting edge interventions such as cell replacement therapy and deep brain stimulation. There is no other current single-volume reference with such a comprehensive coverage and depth. Authors selected are the internationally renowned experts for the particular topics on which they write, and the volume is richly illustrated with over 100 color figures. A collection of articles reviewing our fundamental knowledge of neural aging, the book provides an essential, affordable reference for scientists in all areas of Neuroscience, Neuropsychology and Gerontology. * The most comprehensive source of up-to-date data on the neurobiology of aging, review articles cover: normal, sensory and cognitive aging; neuroendocrine, structural and molecular factors; and fully address both pathology and intervention * Chapters represent an authoritative selection of relevant material from the most comprehensive source of information about neuroscience ever assembled, (Encyclopedia of Neuroscience), synthesizing information otherwise dispersed across a number of journal articles and book chapters, and saving researchers the time consuming process of finding and integrating this information themselves * Offering outstanding scholarship, each chapter is written by an expert in the topic area and over 20% of chapters feature international contributors, (representing 11 countries) * Provides more fully vetted expert knowledge than any existing work with broad appeal for the US, UK and Europe, accurately crediting the contributions to research in those regions * Fully explores various pathologies associated with the aging brain (Alzheimer's, dementia, Parkinson's, memory disorders, stroke, Down's syndrome, etc.) * Coverage of disorders and key interventions makes the volume relevant to clinicians as well as researchers * Heavily illustrated with over 100 color figures*

A Handbook of Neuropsychological Assessment

A Student's Handbook, 6th Edition

What Deficits Reveal About the Human Mind

The International Handbook

The Oxford Handbook of Attention

Originally published in 1992, this is a wide-ranging text concerned with the principles and practice of neuropsychological assessment in adults. It combines a flexible hypothesis testing approach to assessment with information on specialised test batteries. The book covers the major areas of memory, language, perception, attention, and executive dysfunctions, and includes chapters on dementia, alcohol, drug and toxic conditions, stroke and closed head injury. Assessment of dysfunction in cases involving claims for compensation and chapters on specialised assessment techniques, including automated test procedures, are provided. The book presents a sound introduction to this complex area and gives guidelines for the clinician who may need concise information on a specialised topic.

The past 30 years have seen the field of clinical neuropsychology grow to become an influential discipline within mainstream clinical psychology and an established component of most professional courses. It remains one of the fastest growing specialities within mainstream clinical psychology, neurology, and the psychiatric disciplines. Substantially updated to take account of these rapid developments, the new edition of this successful handbook provides a practical guide for those interested in the professional application of neuropsychological approaches and techniques in clinical practice. With chapters by leading specialists, it demonstrates the contribution that neuropsychological approaches can make to the assessment, diagnosis, and treatment of a range of brain disorders, as well as addressing the special considerations when treating children and the elderly. As before, the book is divided into 10 sections, covering everything from methodological and conceptual issues, developmental and paediatric neuropsychology, functional neuroanatomy, and the historical context. Throughout, the content draws on contemporary neuroscientific techniques, focusing on the methods of functional imaging, cognitive psychology, cognitive neuropsychology, neuropsychiatry and cognitive rehabilitation. It also provides background information on laboratory and research techniques, as well as covering relevant neurology and psychiatry. The book will be essential for trainee neuropsychologists, students and teachers in the clinical and cognitive neurosciences/psychology, neurobiologists, neurologists, neurosurgeons and psychiatrists.

First Published in 1986. Routledge is an imprint of Taylor & Francis, an informa company.

This outstanding new handbook offers unique coverage of all aspects of neuropsychological rehabilitation. Compiled by the world's leading clinician-researchers, and written by an exceptional team of international contributors, the book is vast in scope, including chapters on the many and varied components of neuropsychological rehabilitation across the life span within one volume. Divided into sections, the first part looks at general issues in neuropsychological rehabilitation including theories and models, assessment and goal setting. The book goes on to examine the different populations referred for neuropsychological rehabilitation and then focuses on the rehabilitation of first cognitive and then psychosocial disorders. New and emerging approaches such as brain training and social robotics are also considered, alongside an extensive section on rehabilitation around the world, particularly in under-resourced settings. The final section offers some general conclusions and an evaluation of the key issues in this important field. This is a landmark publication for neuropsychological rehabilitation. It is the standalone reference text for the field as well as essential reading for all researchers, students and practitioners in clinical neuropsychology, clinical psychology, occupational therapy, and speech and language therapy. It will also be of great value to those in related professions such as neurologists, rehabilitation physicians, rehabilitation psychologists and medics.

A Student's Handbook

Handbook on the Neuropsychology of Aging and Dementia

An Introduction to Cognitive Psychology

Handbook of Binding and Memory

Cognitive psychology

This handbook celebrates the abundantly productive interaction of neuropsychology and medicine. This interaction can be found in both clinical settings and research l- oratories, often between research teams and clinical practitioners. It accounts for the rapidity with which awareness and understanding of the neuropsychological com- ner recently advanced. The introduction of neuropsychology into practice and research involving conditions without obvious neurological components follows older and eminently successful models of integrated care and treatment of the classical brain disorders. In the last 50 years, with the growing understanding of neurological disorders, ne clinics, at bedside, and in laboratories together have contributed to important clinical and scienti c advances in the und- standing of the common pathological conditions of the brain: stroke, trauma, epilepsy, certain movement disorders, tumor, toxic conditions (mostly alcohol-related), and degenerative brain diseases. It is not surprising tha the rst to receive attention from neuropsychologists as their behavioral symptoms can be both prominent and debilitating, often with serious social and economic consequences.

"The Wiley Blackwell Handbook on the Cognitive Neuroscience of Memory" presents a comprehensive overview of the latest, cutting-edge neuroscience research being done relating to the study of human memory and cognition. Featuring contributions from an international cast of leading experts in episodic, semantic, and working memory summarize the innovative work currently being done in the field by scientists and their peers in each contributor's area of expertise. A wide range of methodological approaches are addressed, including fMRI, EEG, TMS, and neuropsychology--with a strong emphasis on the latest analysis techniques within each of these measurement approaches those with minimal experience in the field. "The Wiley Blackwell Handbook on the Cognitive Neuroscience of Memory" is an invaluable reference to the current state--and future potential--of human memory research.

The Wiley Handbook on the Cognitive Neuroscience of Learning charts the evolution of associative analysis and the neuroscientific study of behavior as parallel approaches to understanding how the brain learns that both challenge and inform each other. Covers a broad range of topics while maintaining an overarching integrative approach authorities in the fields of cognitive neuroscience, associative learning, and behavioral psychology Extends beyond the psychological study of learning to incorporate coverage of the latest developments in neuroscientific research

When Handbook of Normative Data for Neuropsychological Assessment was published in 1999, it was the first book to provide neuropsychologists with summaries and critiques of normative data for neuropsychological tests. The Second Edition, which has been revised and updated throughout, presents data for 26 commonly used neuropsychological tests: Color Trails, Stroop Color Word Interference, Auditory Consonant Trigrams, Paced Auditory Serial Addition, Ruff 2 and 7, Digital Vigilance, Boston Naming, Verbal Fluency, Rey-Osterrieth Complex Figure, Hooper Visual Fluency, Design Fluency, Tactual Performance, Wechsler Memory Scale-Revised, Rey Auditory-Verbal learning, Hopkins Verbal learning, Auditory Verbal Learning, Benton Visual Retention, Finger Tapping, Grip Strength (Dynamometer), Grooved Pegboard, Category, and Wisconsin Card Sorting tests. In addition, California Verbal learning (CVLT and CVLT-II), CERAD ListLearning, and selective Reminding Tests, as well as the newest version of the Wechsler Memory Scale (WMS-III) are reviewed. Locator tables throughout the book guide the reader to the sets of normative data that are best suited to each individual case, depending on the demographic characteristics of the patient, and highlight the advantages associated with using data for comparative purposes. Those using the book have the option of reading the au

particular test, or simply turning to the appropriate data locator table for a quick reference to the relevant data tables in the Appendices. The Second Edition includes reviews of 15 new tests. The way the data are presented has been changed to make the book easier to use. Meta-analytic tables of predicted values for different ages (and tests that have a sufficient number of homogeneous datasets. No other reference offers such an effective framework for the critical evaluation of normative data for neuropsychological tests. Like the first edition, the new edition will be welcomed by practitioners, researchers, teachers, and graduate students as a unique and valuable contribution.

The Oxford Handbook of Numerical Cognition

Handbook Of Clinical And Experimental Neuropsychology

Perspectives from Cognitive Neuroscience

Handbook of Cognition

The Wiley Handbook on the Cognitive Neuroscience of Learning

Categorization, the basic cognitive process of arranging objects into categories, is a fundamental process in human and machine intelligence and is central to investigations and research in cognitive science. Until now, categorization has been approached from singular disciplinary perspectives with little overlap or communication between the disciplines involved (Linguistics, Psychology, Philosophy, Neuroscience, Computer Science, Cognitive Anthropology). Henri Cohen and Claire Lefebvre have gathered together a stellar collection of contributors in this unique, ambitious attempt to bring together converging disciplinary and conceptual perspectives on this topic. "Categorization is a key concept across the range of cognitive sciences, including linguistics and philosophy, yet hitherto it has been hard to find accounts that go beyond the concerns of one or two individual disciplines. The Handbook of Categorization in Cognitive Science provides just the sort of interdisciplinary approach that is necessary to synthesize knowledge from the different fields and provide the basis for future innovation." Professor Bernard Comrie, Department of Linguistics, Max Planck Institute for Evolutionary Anthropology, Germany "Anyone concerned with language, semantics, or categorization will want to have this encyclopedic collection." Professor Eleanor Rosch, Dept of Psychology, University of California, Berkeley, USA

How does the brain represent number and make mathematical calculations? What underlies the development of numerical and mathematical abilities? What factors affect the learning of numerical concepts and skills? What are the biological bases of number knowledge? Do humans and other animals share similar numerical representations and processes? What underlies numerical and mathematical disabilities and disorders, and what is the prognosis for rehabilitation? These questions are the domain of mathematical cognition, the field of research concerned with the cognitive and neurological processes that underlie numerical and mathematical abilities. The Handbook of Mathematical Cognition is a collection of 27 essays by leading researchers that provides a comprehensive review of this important research field.

Handbook of Functional Neuroimaging of Cognition, second edition

The Oxford Handbook of Functional Brain Imaging in Neuropsychology and Cognitive Neurosciences