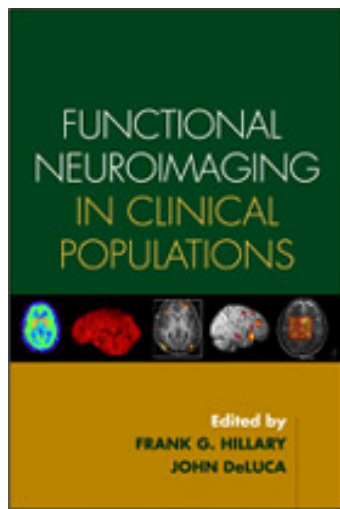


NEW RELEASE



Functional Neuroimaging in Clinical Populations



Edited by Frank G. Hillary and John DeLuca
Foreword by Stephen M. Rao

June 2007

Pages: 400 + Index

Illustrations: 38 black-and-white and 24 colour plates

Size: 6 1/8" x 9 1/4"

Binding: Hardcover

ISBN-13: 978-1-59385-479-9

ISBN-10: 1-59385-479-X

Aust. RRP: \$121.00*

Overview

Bringing together leading experts, this volume reviews cutting-edge applications of neuroimaging techniques in the study of brain injury, brain disease, and normal aging. It provides up-to-date descriptions of EEG, MEG, PET, and fMRI; discusses salient methodological issues; and presents significant clinical advances that have been brought about through the use of these procedures.

Specific disorders addressed include epilepsy, aphasia, traumatic brain injury, multiple sclerosis, alcoholism, autism, schizophrenia, and stroke. Analysing what functional imaging has revealed about the causes and mechanisms of sensory, motor, and cognitive disturbances associated with these conditions, the book also explores implications for improving cognitive rehabilitation. More than 60 illustrations, including 24 in full colour.

ORDER ONLINE NOW
www.psychassessments.com.au

Reviews

"In the past two decades, there has been a revolution in the ability of investigators to observe alterations of physiological functions as well as neurotransmitters and the deposition of abnormal products in specific anatomic sites of the brain. Now these functional imaging techniques are beginning to influence the clinical practice of neurology and psychiatry. This excellent volume contains comprehensive reviews of these advances, written by many of the leaders in this field. For clinicians who deal with brain disorders and for clinical investigators, this book should be essential reading."

-Kenneth M. Heilman, MD, Department of Neurology, University of Florida College of Medicine

"This is one of the first texts to focus on clinical applications of functioning neuroimaging, not just basic research. The book provides an excellent review of PET, fMRI, MEG, and EEG techniques, and highlights their potential for furthering the diagnosis and treatment of neurological and neuropsychiatric disorders. The contributors are leaders in their respective areas of study, and together they offer an up-to-date review and integration of this burgeoning field."

-Erin D. Bigler, PhD, Department of Psychology, Brigham Young University

"A highly useful reference for neuropsychologists and their students interested in imaging research. The contributors provide succinct and easily understood summaries of acquisition techniques, methods of analysis, and clinical applications of fMRI, PET, and other imaging modalities."

-Paul Malloy, PhD, Butler Hospital and Brown University Medical School

About the Editors

Frank G. Hillary, PhD, is an Assistant Professor in the Department of Psychology at Pennsylvania State University and holds faculty positions in the Departments of Neurology and Psychiatry at Hershey Medical Centre in Hershey, Pennsylvania, and in the Department of Radiology at the University of Medicine and Dentistry of New Jersey—New Jersey Medical School in Newark.

John DeLuca, PhD, is the Director of Neuroscience Research and Vice President for Research Training at the Kessler Medical Rehabilitation Research and Education Corporation; a Professor in the Departments of Physical Medicine and Rehabilitation and Neurosciences at University of Medicine and Dentistry of New Jersey—New Jersey Medical School; and a licensed psychologist in New Jersey and New York.

Audience

Neuropsychologists, cognitive neuroscientists, neurologists, and psychiatrists; graduate students and residents in these areas.

Table of Contents

I. Principles of Functional Imaging

1. Principles of Positron Emission Tomography, Balázs Gulyás and Nils Sjöholm
2. Principles of Functional Magnetic Resonance Imaging, Peter A. Bandettini
3. Principles of Electroencephalography and Magnetoencephalography, Anto Bajic and Susumu Sato

II. Neuroimaging Methods

4. Considerations for the Application of BOLD Functional Magnetic Resonance Imaging to Neurologically Impaired Populations, Adam Gazzaley and Mark D'Esposito
5. Network Analysis of the Human Brain: Applications to Understanding Normal and Abnormal Neural System Operations, Anthony R. McIntosh and Cheryl L. Grady

III. Clinical Applications

6. Functional Neuroimaging of Developmental Disorders: Lessons from Autism Research, Ralph-Axel Müller
7. Functional Magnetic Resonance Imaging in Neurosurgical Planning: Language, Memory, and Seizure Outcome in Temporal Lobe Epilepsy, Brenna C. McDonald and Andrew J. Saykin
8. Functional Neuroimaging of Impaired Language in Aphasia, Bruce Crosson
9. Functional Neuroimaging of Traumatic Brain Injury, Helen M. Genova, Neal M. Fitzpatrick, and Frank G. Hillary
10. Functional Neuroimaging in Multiple Sclerosis, Gerald T. Voelbel, Nancy D. Chiaravalloti, and John DeLuca
11. Alcohol Intoxication and Brain Imaging: Challenges and Findings, Vince D. Calhoun and Godfrey D. Pearlson
12. Functional Neuroimaging in Schizophrenia, J. Daniel Ragland
13. Testing Hypotheses of Age-Related Performance Changes Using Functional Magnetic Resonance Imaging, Bart Rypma
14. Functional Neuroimaging in Recovery from Stroke, Elizabeth R. Orr, Rachele W. Rodriguez, and Steven C. Cramer
15. Implications of Functional Neuroimaging in Neurorehabilitation, Joseph H. Ricker



PO Box 27, Jannali NSW 2226

Tel (02) 9589 0011 Fax (02) 9589 0063

Email: infopaa@psychassessments.com.au

www.psychassessments.com.au