Record Nr. UNINA9910817953603321 The asymmetrical brain / / edited by Kenneth Hugdahl and Richard J. **Titolo** Davidson Pubbl/distr/stampa Cambridge, Mass., : MIT Press, c2003 **ISBN** 1-282-09964-7 0-262-27584-8 9786612099649 0-585-43688-6 Edizione [1st ed.] Descrizione fisica 1 online resource (819 p.) HugdahlKenneth Altri autori (Persone) DavidsonRichard J Disciplina 612.8/2 Soggetti Cerebral dominance Laterality Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Rev. ed. of: Brain asymmetry / edited by Richard J. Davidson and Kenneth Hugdahl. c1995. " A Bradford book." Nota di bibliografia Includes bibliographical references and indexes. Nota di contenuto Contents; Preface; I - Animal Models/Basic Functions; 1 - Hemispheric Asymmetry in the Visual System of Birds; 2 - A Hippocampal Theory of Cerebral Lateralization; 3 - Stress and Coping: Asymmetry of Dopamine Efferents within the Prefrontal Cortex; 4 - The Nature and Determinants of Handedness; II - Neuroimaging and Brain Stimulation Studies; 5 - Characterizing Functional Asymmetries with Brain Mapping; 6 - Anatomical Brain Asymmetries and Their Relevance for Functional Asymmetries: 7 - Transcranial Magnetic Stimulation Studies of Asymmetry of Cognitive Functions in the Brain III - Visual Laterality8 - Interaction between the Hemispheres and Its Implications for the Processing Capacity of the Brain; 9 - Asymmetries in Encoding Spatial Relations; 10 - Complexities of Interhemispheric Communication in Sensorimotor Tasks Revealed by High-Density Event-Related Potential Mapping; IV - Auditory Laterality; 11 -

Hemispheric Asymmetries in the Processing of Tonal Stimuli; 12 - Dichotic Listening in the Study of Auditory Laterality; 13 - Effects of

Attention on Hemispheric Asymmetry; Color Insert; V - Emotional Laterality

14 - The Functional Neuroimaging of Human Emotion: Asymmetric Contributions of Cortical and Subcortical Circuitry15 - Regional Brain Activity in Anxiety and Depression, Cognition/Emotion Interaction, and Emotion Regulation; 16 - The State and Trait Nature of Frontal EEG Asymmetry in Emotion; VI - Neurological Disorders; 17 - Agenesis of the Corpus Callosum; 18 - Developmental Disorders: Dyslexia; 19 - Structural Correlates of Brain Asymmetry: Studies in Left-Handed and Dyslexic Individuals; VII - Psychiatric Disorders 20 - Frontal and Parietotemporal Asymmetries in Depressive Disorders:

20 - Frontal and Parietotemporal Asymmetries in Depressive Disorders Behavioral, Electrophysiologic, and Neuroimaging Findings21 - The Laterality of Schizophrenia; Contributors; Author Index; Subject Index

Sommario/riassunto

The folk belief that the left brain hemisphere is dominant for language and the right for visuospatial functions is incomplete and even misleading. Research shows that asymmetries exist at all levels of the nervous system and apply to emotional as well as to higher cognitive processes. Going beyond the authors' previous book, Brain Asymmetry, this book reflects the most recent thinking on functional asymmetries and their structural correlates in brain anatomy. It emphasizes research using new neuroimaging and neurostimulation techniques such as magnetic resonance imaging (MRI and fMRI), positron emission tomography (PET), magnetoencephalography (MEG), and transcranial magnetic stimulation (TMS). It also considers clinical applications of asymmetry research. The book contains sections on animal models and basic functions, neuroimaging and brain stimulation studies, visual laterality, auditory laterality, emotional laterality, neurological disorders, and psychiatric disorders.