

## Book Review

### HUMAN COGNITION-AS WE UNDERSTAND TODAY

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Title: Human Cognition – As We Understand Today

Editor – Dr S. R. Chandra

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“*Keneshitham patati: Preshitam Mana:*” thus dawns one of the greatest Upanishads of our culture enquiring into the fact of willed by whom is the mind functioning like this. It is regarded as one of the ancient lines of inquiry into the functioning of the mind. Over the centuries scientists including neurologists and psychiatrists have been on the hunt for answers to this scientific and philosophical query. In recent times the inquiry has entered into the realms of cognition and consciousness about which much information is being made available to the scientific and lay community. This review is about a book edited by Dr S. R. Chandra, an eminent neurologist of our times who has attempted to link the scientific and spiritual realms of brain science in her life and knowledge.

“Any book related to cognitive neurology will always be exciting and educative to neuroscientists, psychiatrists and physicians...”

comments Dr. K. Srinivasan, Emeritus Professor of Neurology Madurai Medical college in the foreword to the book – Human Cognition – As We Understand Today. Rightly said, the book edited by Dr. Chandra touches upon many of the borderline areas in cognitive neurology in addition to the solid knowledge it provides about core cognitive neurology.

The book has 30 chapters which provide a delicious feast for anyone interested in the realm of cognition. Among the topics covered in the book are the art and science of medicine, cognition and nutrition, ancient Indian system of medicine and cognition, cognitive disorders in children, law and cognitive dysfunction, rating scales in cognition, cognition in India and the like among other chapters which deal with the current knowledge about cognitive disorders. The chapters are penned by eminent authors from within and outside India. Aptly, many of the core topics are written by the editor

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herself who has the authenticity and authority on the said subjects.

Let us just scan through the important chapters in the book as a part of this review. Chapter 1 begins with a quote from Adi Sankara's Soundarya Lahari, passes through William Osler's famous quote "We are here to add what we can to life, not to get what we can from life" and passes through industrialization of medicine, and attempts to answer the question of "Are we losing meaning in our work". Chapter 2 deals with historical aspects, organization and functional subdivisions of cerebral cortex and connectivity. The chapter gives a passing note about the major brain circuits like language network, spatial orientation network, object recognition network emotional memory network and attention and behaviour network. This chapter is something which every psychiatric resident should be aware of as a part of his academic and clinical career. This chapter also gives a list of common terms used in cognitive neuroscience with their definitions.

Chapter 3 deals with an approach to a patient with a memory complaint at the bedside and symptom analysis. Highlights of the chapter are descriptions about the history of memory disorders in India, references to suicidal behaviour and their relation to cognitive aetiologies and medicines and the like. Chapter 4 deals with neuropsychological border zone symptoms and assessment at the bedside. It emphasizes the time-tested lessons taught by teachers that "if all the investigations fail, do a thorough history and clinical examination". Chapter 5 deals with neuropsychological testing techniques in patients with cognitive dysfunction. A detailed account of various tests of cognitive functions like Mini Mental Status Examination (MMSE), Cognistat etc are included in this chapter. The chapter also gives a note on conducting a bedside

neuropsychological assessment based on clinical experience.

Chapter 6 deals with imaging techniques in cognitive dysfunction. Chapter 7 and chapter 8 briefs the neuropathological aspects of dementia and biomarkers in cognitive dysfunction respectively. Chapter 9 deals with the language involvements in different aspects of cognitive disorders. Chapter 10 deals with domain-based approach to cognitive function and dysfunction. This chapter deals with social cognition, emotions, self, the theory of mind, empathy and sympathy, neglect syndromes and the like. Chapter 11 deals with localization-based approach to cognitive dysfunction and is a definite treat for students and doctors of neurology and psychiatry. This chapter also gives an account of various lobe function tests which a young psychiatrist should be familiar with. This chapter has subsections which deal with each lobe of the brain in detail. The interesting aspect is that these chapters form a link between advanced neurological techniques and philosophical realms like keno Upanishad and prescribes a way for the neurologist, the scientist to become the neurologist, the philosopher.

The 12th chapter is a treatise on vascular dementia. It deals with vascular dementia in varied aspects starting from genetics and aetiology to treatment methodologies include lifestyle changes. Chapter 13 deals with cognitive dysfunction in neuroinfections. Chapter 14, 15, and 16 deals with frontotemporal dementias, differential diagnosis and treatment of Alzheimer's disease and cognition in movement disorders. Chapter 17 details rapidly progressive dementias and emphasises the need to look for a treatable cause. Chapter 18 and 19 deal with immune-mediated cognitive disorders, surgical syndromes presenting as cognitive dysfunctions respectively. Chapter 20 deals with illustrative case series of persons with cognitive

change. This chapter delineates patients who have isolated themselves from the false self-information of the probable physical body and its relations and live at a level which we don't understand.

Chapter 21 is an account of cognition and nutrition which is not addressed in many texts on neurology written by authors from our part of the country. It also gives an account of causes like toxic and metabolic causes of dementia. Chapter 22 gives an account of care to be given to the caregiver, cognitive training, motor rehabilitation, preventive strategies for dementia, yoga, dance and music for cognition and behaviour, and possible global techniques for graceful aging. Chapter 23 deals with the ancient Indian system of medicine and cognition and is yet another knowledge discourse for a student of psychiatry and neurology. Chapter 24, the miscellaneous section covers traumatic brain injury, the effect of diabetes on cognition, epilepsy and memory, and the like.

Chapter 25 and 26 deals with problems related to children like cognitive disorders in children, and illustrative case reports of children with global developmental problems. Chapter 27 deals with law and cognitive dysfunction which perhaps is not a chapter usually found in a textbook of neurology covering cognitive function. Chapter 28 covers various rating scales in cognition. Chapter 29 deals with a list of various publications and studies, book chapters for further reading, list of monographs and books.

In the concluding chapter 30, penned by Dr Chandra herself, the author skilfully mixes the domains of science, spirituality, brain sand concept, spiritual approach to the problem of major cognitive disorder which ends with the global message of peace, health and happiness for the world. *“Lokah Samasthah Sukhino bhavantu”*.

A number of factors make this book recommendable for a youngster or adept in the field of neurology and psychiatry. First and foremost is the lack of such a book formulated from our part of the country with experiences drawn from our own culture. Another reason is the pictures (more than 100) from our own patient population which makes the book dearer to a doctor from our part of the country. Case based discussions, individual observations and experiences make this book a very special one to have with. *Considering the volume of information provided in the book, the cost of the book is very less. The fact that the book is published by an individual and is not available in many of the shops is perhaps the single factor which has to be mentioned as negative in relation to this book.*

The book, an expression of Dr Chandra's lifelong assignation with the human brain and its captivating functions is highly needed one of the times. Considering the fact that the divide between psychiatry and neurology is getting narrowed, the book seems to be a need of the hour where cognitive neurology meets mental health in its varied and vivid aspects.

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