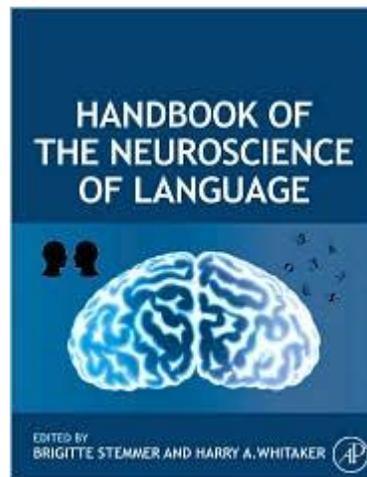




BOOK REVIEW



Title: *Handbook of the Neuroscience of Language*

Authors: Brigitte Stemmer & Harry A. Whitaker (Editors)

Hardcover: 512 pages

Publisher & Publishing Location: Academic Press; 1st edition, London.

Language: English

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Synopsis

Since more than two decades or more elapsed, and with the publication of an important book by Robert Sylwester, a leading researcher in neurosciences applications to pedagogy has provided with his research and books an introduction to “the only mass of matter in the known universe that can contemplate itself” – the human brain. In this mode, Stemmer and Whitaker (2008) have sustained such efforts to introduce this wonderful field of the neurosciences as applied to language learning. The editors believe that there have been significant developments in linguistic and psychological theory which addressed the neuroscience of language. *The Handbook of the Neuroscience of Language* has provided an extensive and comprehensive review of research of relevance that bolsters up the developments and implications of neurosciences as to language learning. In this fashion, the editors, through an amalgam of explanations, analogies, and clear diagrams, have provided a thorough survey of the subject, covering all the main notions and facts required for people who work with brains as an abstract construct, especially in relevance to language learning. The editors have not ruled out the fact that the intended audience is made up of language teachers and teacher educators and, therefore, they conscientiously linked the information they provided with potential applications for it in the classroom. In fact, the book has been set to tackle three major themes, the introductory one overviews the history and current practices in neurolinguistic research, aphasia syndromes, and lesion analysis; the second theme gives an overview of neuroimaging and reflections of this technique in methodological study of the brain, and the third has tackled empirical and clinical reflections and developments in the field of neuroscience applications to language learning.

The book is easily accessible in content and style to the moderate academic and the practitioner teacher. It is divided into five sections, section one discusses methods and techniques including clinical assessment approaches, methods of mapping the human brain, and a theoretical framework for interpreting the multiple levels of neural organization that contribute to language comprehension. Section two discusses the impact imaging techniques (PET, fMRI, ERPs, electrical stimulation of language cortex, TMS) have made to language research. Section three discusses experimental approaches to the field, including disorders at different language levels in reading as well as writing and number processing. In this vein, the book has adeptly addressed disorders of phonetics and phonology, impaired morphological processing, disorders of lexis, syntax, and neuropragmatic disorders as well as the role of memory systems in overall language disorders and acquired reading and writing disorders in particular. Additionally, chapters here present computational models, discuss the role of mirror systems for language, and cover brain lateralization with respect to language. Part four focuses on language in special populations, in various disease processes, and in developmental disorders. The book ends with a listing of resources in the neuroscience of language and a glossary of items and concepts to help the novice become acquainted with the field. In this important part of the book, the editors have introduced the relationship between language and dementia, stuttering and dysfluency, frontal lobes and language, and so many related topics. It also tackled important topics as language and communication in developmental disorders, e.g., language and communication disorders in multilinguals, in ageing, in Williams syndrome, etc. Finally, the book has dealt with recovery,

therapy and rehabilitation techniques involving technology and electronic contraptions for addressing language disorders.

The major strength of this work is its relative accessibility. To paraphrase an old cliché, it may be about recent findings in neuroscience, but one does not have to be a brain surgeon to understand it. As such, the editors have developed this book in a bid to reflect recent developments in neurolinguistics, relevantly, but straightforward, addressing research findings on the cognitive neuroscience of language and related applications to language pedagogy over a period of the past decade.

The one drawback with this book, however, is the authors' overriding use of various shifting models in their explanations. Overall, however, this book can prove invaluable not only to language educators in academia (although they will be able to make better use of the suggestions provided) but to anybody with a vested interest in language learning. As long as the brain is the central medium through which every child and adult acquire, process, and maintain linguistic information, we are best served by tailoring such acquisition, procedure, and maintenance to the processes by which this remarkable organ functions.

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