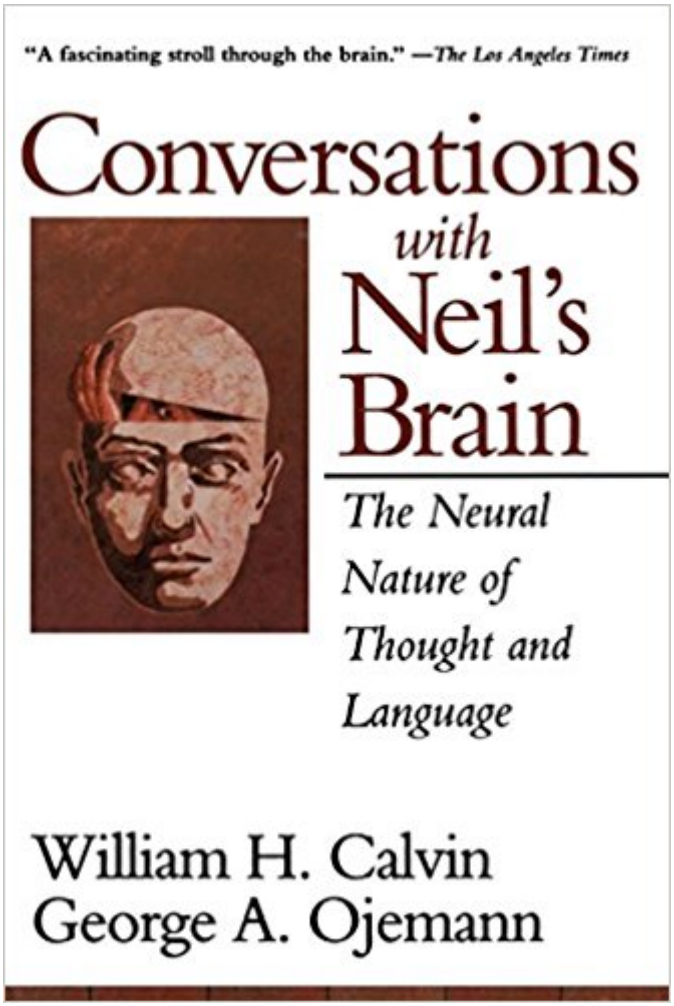
Conversations With Neil's Brain: The Neural Nature Of Thought And Language



Synopsis

In a series of stories before, after, and even during neurosurgery, an epileptic patient, Neil; his surgeon, George Ojemann; and neuroscientist William Calvin work together to remove a portion of Neil's temporal lobe. If they do it right, they will have a good chance of putting an end to Neil's seizures. If they slice too far to the left or right, they will wipe out essential parts of Neil's memory, or his ability to follow a joke to the punch line, or maybe his ability to recognize his wife's face. In essence, they can erase or alter parts of Neil.Conversations with Neil's Brain takes us inside the operating room and allows us to be part of this eerie process of discovery, using it to provide a unique window on human consciousness and the nature of human identity. The mapping of Neil's brain brings to life as never before the astounding specificity by which the brian operates, making clear why language, memory, and decision making are so complex, and why the cures for such ailments as learning disabilities, mental disorders, Alzheimer's, and strokes continue to elude the world's best medical efforts. In the context of this unique surgical drama, Conversations with Neil's Brain unfolds as an intensely compelling read.

Book Information

Paperback: 352 pages

Publisher: Basic Books; First Edition edition (April 25, 1995)

Language: English

ISBN-10: 0201483378

ISBN-13: 978-0201483376

Product Dimensions: 6 x 0.8 x 9 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 stars 6 customer reviews

Best Sellers Rank: #295,713 in Books (See Top 100 in Books) #32 inÂ Books > Health, Fitness & Dieting > Diseases & Physical Ailments > Epilepsy #493 inÂ Books > Medical Books > Medicine > Internal Medicine > Neurology > Neuroscience #641 inÂ Books > Medical Books > Psychology > Neuropsychology

Customer Reviews

The Neil named in the title, identified as an engineer who became epileptic after fracturing his skull, undergoes brain surgery to remove part of his temporal lobe in the hope of eliminating his seizures. By stimulating his cerebral cortex, doctors map regions that control his memory, movement and his ability to use language. "Neil" is actually a composite of several epileptic patients, a device

neurophysiologist Calvin and neurosurgeon Ojemann, both at the University of Washington, use to good effect, as they did in their earlier collaboration Inside the Brain. In a model of lucid scientific exposition, they scan recent research on memory, language and learning disabilities to explore links between brain damage and schizophrenia, obsessive-compulsive disorders, sociopathic behavior and depression. Illustrating their points with far-ranging examples, the authors cite, among others, Virginia Woolf who, in her manic episodes, would talk almost without stopping for two or three days, and Woodrow Wilson whose strokes paralyzed his left side and gave him "mild paranoia," leaving him unable to argue effectively for the League of Nations. Illustrations. Copyright 1994 Reed Business Information, Inc. --This text refers to an out of print or unavailable edition of this title.

Neurophysiologist Calvin and neurosurgeon Ojemann succeed admirably in describing the anatomy and physiology of the brain-undoubtedly the most complex organ in the human body-in very understandable terms. Using the ploy of a dialog with a brain surgery candidate named Neil, the authors answer many puzzling questions concerning the brain’s functions. Neil, who suffers from epileptic seizures as a result of brain damage sustained in an auto accident, is eager to have the damaged cells removed. During the course of extensive conversations, Neil learns about memory, moods, motor functions, language, thought patterns, and visual comprehension. Line drawings enhance the explanations. This fascinating book is recommended for consumer health collections.Carol R. Glatt, VA Medical Ctr. Lib., PhiladelphiaCopyright 1994 Reed Business Information, Inc. --This text refers to an out of print or unavailable edition of this title.

It’s hard to stick with this one. There’s not much of a plot to draw you from chapter to chapter, and as instructional material, it drags out too much. Given learning as the objective for reading it, I’d rather just read something that cuts to the chase in a more overt, efficient, instructional manner.If you ever wondered what a friendly, open, unassuming neuroscientist or neurosurgeon might sound like if there were such a thing, you might read this to indulge that fantasy ;) These two authors have gone to great lengths to make their world accessible, which is a much appreciated effort by those of us in allied fields.

I read this book as part of my first neurobiology course and I thought it was just awesome. The book is written so that most people (not only undergraduate neurobiology majors) will be able to understand and appreciate it.It’s an awesome book, which explains how the brain works by going through conversations between a surgeon and his curious patient.

CONVERSATIONS WITH NEIL'S BRAIN is a glossary of brain parts packaged as dialogue between Calvin and his imaginary friend, Neil.The reading experience reminds me of a psycho-physiology course I took 25 years ago. Some exciting brain research had been done, but the old moss-backed professor ignored everything newer than about 1960.Calvin forfeited an opportunity to add snap, crackle, and pop to his tedious and dull lecture about brain physiology. Exciting things are happening, and he ignored much of it to rehash stuff from the 40s & 50s.

William H. Calvin (born 1939) is a professor at the University of Washington in Seattle, and a well-known popularizer of neuroscience and evolutionary biology (e.g., see his booksÂ The Ascent of Mind: Ice Age Climates and the Evolution of Intelligence,Inside the Brain). George Ojemann is a neurosurgeon, who collaborated with Calvin on the 'Inside the Brain' book.They wrote in this 1994 book, "rather than consciousness or awareness, neurologists prefer to talk about something they can objectively measure: levels of arousability... Arousal is not the same as attention, another aspect of consciousness. Arousal is general, not specific like attention... But equating 'conscious' with 'arousable' creates appalling problems. It tends to ber interpreted as ascribing consciousness to any organism that has irritability. And irritability is a property of all living tissue... With so many major synonyms... you can see why everyone gets a little confused talking about consciousness." (Pg. 22-23)They observe, "Somewhere... during the 6 million years since we last shared a common ancestor with our chimpanzee cousins, our predecessors appear to have minimized a system that assigned meaning to individual sounds... How and when and where was this conversion done? That's the big question of anthropology and linguistics. It appears that much of it probably happened in the last 2.5 million years... because that's when hominid brain size and its surface infolding pattern were also changing... So we may not know WHEN language abilities changed within that long period, but we surely know a big aspect of WHAT changed." (Pg. 247)They note, "consciousness wasn't in your brain stem either... Selective-attention circuits up in the thalamus and the cortex have a lot more to do with it. Consciousness is more like a searchlight that moves around from one part of the cerebral cortex to another... If you set the consciousness threshold at talking to yourself... then you've said that only humans are conscious... [and] you'll probably leave out some essential considerations. Such as that changing focus of selective attention, why we get bored after a while even when satisfied." (Pg. 270)They summarize "neural Darwinism": "So pattern, copying, variations, competition for a work space, and a multifaceted envirionment that biases the competition are five of the six essentials of a darwinian process. The sixth is to close the loop... all

someone is trying to convey is that random variations are being shaped up by selective survival into a meaningful pattern... [A Darwin Machine] refers to the whole class of computing machines, each of which uses those six essentials of a darwinian process." (Pg. 284-285)The "dialogue" format of much of the book will appeal to some readers; I personally found it annoying, at times.

Conversations with Neil’s Brain By Calvin & Ojemann.Reviewed by Dr. Charles FinlayThis is a trip through the brain, "Neil’s Brain," Traveling through dendrites, axioms, and the web of the neuro-cortex into a better comprehension of what the brain does. Deep into the amygdala across to the hippocampus and onto the frontal lobe, all in a well mapped adventure to a better perception how our brains work. Neil, who’s brain we examine, is a combination of treatments and discoveries about the brain rolled into one person. This is a well-written story about a "subject" with a dilemma that can be remedied by the use of brain surgery. As we travel the neuro-cortex of "Neil’s Brain" the mystery of how the brain works is simplified into an understanding of the inner machinery of the living brain. If you are interested in the how and why the brain does what it does this is a good place to start. Conversations with Neil’s Brain is an adventure and a "text" book. It is fun to read and overflows with information on the parts and process of the brain.

This book describes a type of epilepsy surgery usingsubdural electrode grids prior to surgery. I underwentthe same surgery as described in this book. This bookis a very readable book that explains this kind of surgeryin understandable language to the average reader. A mustread for anyone with epilepsy.

Replacement Parts for the Brain: Implantable Biomimetic Electronics as Neural Prostheses (MIT Press) Toward Replacement Parts for the Brain: Implantable Biomimetic Electronics as Neural Prostheses (Bradford Books) Chemistry, Student Solutions Manual Molecular Nature of Matter by Jespersen, Neil D., Brady, James E., Hyslop, Alison [Wiley,2011] [Paperback] 6TH EDITION Primate Brain Maps: Structure of the Macaque Brain: A Laboratory Guide with Original Brain Sections, Printed Atlas and Electronic Templates for Data and Schematics (including CD-ROM). 131 Creative Conversations For Couples: Christ-honoring questions to deepen your relationship, grow your friendship, and ignite romance. (Creative Conversations Series) Interviews and Conversations with 20th-Century Authors Writing in English: An Index (Interviews & Conversations) Why Isn't My Brain Working?: A Revolutionary Understanding of Brain Decline and Effective Strategies to Recover Your Brain's Health Blood-Brain Barrier in Drug Discovery: Optimizing Brain Exposure of CNS Drugs and Minimizing Brain Side Effects for Peripheral Drugs The Stuff of Thought: Language as a Window into Human Nature Conversations with John le Carre (Literary Conversations Series) Conversations with Octavia Butler (Literary Conversations Series) Brain GamesÂ® #1: Lower Your Brain Age in Minutes a Day (Brain Games (Numbered)) 100+ Word Fill In Puzzle Book For Adults: The French Style Brain Teaser Crossword Puzzles With Fill In Words Puzzles for Total Brain Workout! (A Total Brain Workout Series) (Volume 1)