The Oscillating Brain: How Our Brain Works

Timothy D. Sheehan
LifeRich Publishing (Jan 12, 2016)
Softcover $12.99 (158pp)
978-1-4897-0580-8

The Oscillating Brain is an absorbing, in-depth introduction to brain anatomy and function.

Timothy D. Sheehan draws from his diverse education and experience to form intriguing explanations of brain function in The Oscillating Brain. Jesuit study, college degrees in psychology and medicine, work as an army psychiatrist, and interest in the relatively young science of complex systems theory all inform Sheehan's holistic view of the anatomy and physiology of the brain.

Much like the brain itself, the book synthesizes and connects information to explain how human behavior, both individual and societal, can be directly attributed to what we know so far about brain function. Sheehan organizes wide-ranging material very logically and expands upon previous chapters to build up the foundations for his conclusions. He writes in short, compact sentences and explains complicated scientific concepts in an easily understood manner.

It's a difficult job to deconstruct neuroscience and describe the body's most intricate and metabolically active organ for a general audience. While it may be helpful to have a previous understanding of what neurotrophins, apoptosis, or GABA are, it is not a requirement, as Sheehan describes things at a steady pace and with many references to previously discussed topics.

The book is stuffed with dense information and descriptions of many abstract concepts about how the brain interprets sensory information, creates memories and a sense of self, and provides highly individualized perceptions of reality. There are good explanations of various psychological disorders whose origins lie in chemical and electrical misfiring of complicated neural networks, including schizophrenia, Tourette’s syndrome, and PTSD.

While there are a handful of illustrations, some additional visuals or perhaps some case studies from Sheehan’s decades of clinical practice would enliven the text.

The Oscillating Brain reaches its crescendo when the author connects all of the information about brain function and combines it with his observations of human behavior. He notes that human brain activity is biased toward a narcissistic and unrealistic understanding of others, which often leads to conflict, especially in times of stress.

The book warns that now, when the pace of technological change and globalization is unprecedented, it is easy for societies and individuals to instinctively retreat to simpler views, but he stresses that we must strive instead to act in ways that engage others, understanding that people of other nationalities, cultures, and religious beliefs simply perceive the world differently, not wrongly.

The Oscillating Brain is an absorbing, in-depth introduction to brain anatomy and function, overlaid with complex systems analysis of individual and societal behavior. It is a thoughtful book with important considerations for current political, philosophical, and economic debates.

Source: https://www.forewordreviews.com/reviews/the-oscillating-brain/