# ALPHABETICAL BRAIN<sup>TM</sup> VOCABULARY HUMANIST GALAXY OF SECULAR SCIENCE STARS April 30, 2020

### THE MIND AND THE BRAIN:

Neuroplasticity and the Power of Mental Force

by Jeffrey Schwartz and Sharon Begley. Published by ReganBooks/Harper Collins, 2002, 2003 paperback edition (i-xii, 420 pages)

#### **BOOK OUTLINE =**

**QUOTE** = "In summary, your mind's mental force involves your self-organized memory resources, which are primarily made possible by the neuroplasticity processes of your brain and nervous system. That natural brainpower is commonly understood among educated people to be the source of your awesome willpower or free will." by the webmaster [who was a professional public librarian in Los Angeles for more than four decades]

## **ACKNOWLEDGMENTS** (xi-xii)

**INTRODUCTION** (1-20)

- **1) THE MATTER OF MIND** (21-53)
- **2) BRAIN LOCK** (54-95)
- **3) BIRTH OF A BRAIN** (96-131)
- 4) THE SILVER SPRING MONKEYS (132-162)
- **5) THE MAPMAKERS** (163-200)
- 6) SURVIVAL OF THE BUSIEST (201-224)
- 7) NETWORK REMODELING (225-254)
- **8) THE QUANTUM BRAIN** (255-289)

### **9) FREE WILL, AND FREE WON'T** (290-322)

### 10) ATTENTION MUST BE PAID (323-364)

**EPILOGUE** (365-375)

**NOTES** (377-408)

**INDEX** (409-420)

**Brain** (page 410 of Index = with 19 reference topics and 9 more cross references)

**Consciousness** (page 411 of Index = with dozens of references, including attention, evolution and function of brain, quantum physics, and volition or willpower and the brain)

Cortical reorganization (page 412 index)

*Mental Force* = (many specific details referenced on page 414 of the Index, including directed mental force)

*Mindfulness* (page 415 index)

Morality

Nerves

#### **AUTHOR NOTES =**

- [1] Jeffrey M. Schwartz M.D. is an internationally-recognized authority on Obsessive-Compulsive Disorder and is the author of the bestseller Brain Lock in 1997, and the co-author of the book, A Return to Innocence in 1998, and the co-author of the book, You Are Not Your Brain --- the 4-Step Solution for Changing Bad Habits, Ending Unhealthy Thinking, and Taking Control of Your Life in 2012. He is a Research Professor of Psychiatry at the UCLA School of Medicine.
- [2] Award-winning writer Sharon Begley is the science columnist for the Wall Street Journal; before that she was senior science writer for Newsweek. Also she is

the author of two popular brain books: Train Your Mind, Change Your Brain: How a New Science Reveals Our Extraordinary Potential to Transform Ourselves in 2007 and The Emotional Life of Your Brain: How Its Unique Patterns Affect the Way You Think, Feel, and Live — and How You Can Change Them in 2012. She lives in Pelham New York.

**SUMMARY** = A groundbreaking work of science that confirms, for the first time, the independent existence of the mind. And it demonstrates the possibilities for the mind's human control over the workings of the brain.

**BOOK DESCRIPTION** = Conventional science has long held the position that "the mind" is merely an illusion, a side effect of electrochemical activity in the physical brain. Now in paperback, Jeffrey Schwartz and Sharon Begley's groundbreaking work, The Mind and the Brain, argues exactly the opposite: that the mind has a life of its own.

Schwartz, a leading researcher in brain dysfunctions, and Wall Street Journal science columnist Sharon Begley demonstrate that the human mind is an independent entity that can shape and control the functioning of the physical brain. Their work has its basis in our emerging understanding of adult neuroplasticity --- the brain's ability to be rewired not just in childhood, but throughout life, a trait only recently established by neuroscientists.

Through decades of work treating patients with obsessive—compulsive disorder (OCD), Schwartz made an extraordinary finding: while following the therapy he developed, his patients were effecting significant and lasting changes in their own neural pathways. It was a scientific first: by actively focusing their attention away from negative behaviors and toward more positive ones, Schwartz's patients were using their minds to reshape their brains. They were discovering a thrilling new dimension to the concept of neuroplasticity.

The book follows Schwartz as he investigates this newly discovered power, which he calls self-directed neuroplasticity or, more simply, mental force. It describes his work with noted physicist Henry Stapp and connects the concept of mental force with the ancient practice of mindfulness in Buddhist tradition. And it points to potential new applications that could transform the treatment of almost every variety of neurological dysfunction, from dyslexia to stroke — and could lead to new strategies to help us harness our mental powers.

Yet as wondrous as these implications are, perhaps even more important is the philosophical dimension of Schwartz's work: The existence of the mental force offers convincing scientific evidence of human free will, and thus of man's inherent capacity for moral choice.

In addition, an Amazon certified reader stated: "Fascinating! Schwartz and Begley excel at spreading enthusiasm for science by forging scintillating concepts out of difficult ideas."

#### PROFESSIONAL BOOK REVIEWS =

**FROM PUBLISHERS WEEKLY** = Schwartz (A Return to Innocence), a UCLA psychiatrist and expert on treating patients with obsessive compulsive disorder (OCD), teams up with Begley, a Wall Street Journal science columnist, to explore the mind/brain dichotomy and to discuss the science behind new treatments being developed for a host of brain dysfunctions. Building on the work presented in Schwartz's first book, Brain Lock, the authors begin by demonstrating that OCD patients are capable of rechanneling compulsive urges into more socially acceptable activities and that, by doing so, they actually alter their brains' neuronal circuitry.

By presenting a wide array of animal and human experiments, Schwartz and Begley show that similar neuroplasticity is possible in stroke victims, often leading to a return of function previously thought impossible. The medical results and treatments they summarize are exciting and deserve widespread attention. In a chapter entitled "Free Will and Free Won't," the authors turn to the philosophical, examining the implications neuroplasticity might have on the differences between mind and brain; they also discourse on the existence of free will. Unfortunately, their integration of quantum mechanics and Buddhism into a search for a mechanism to explain the patterns scientists have been discovering is too superficial to fully engage readers. Nonetheless, a great deal in this book is sure to motivate discussion and more research.

**BOOKLIST** = Schwartz's undergraduate major was philosophy, and that interest as well as Buddhism has broadened his outlook and makes this book potentially attractive to more readers than those habitually interested in "brain science."

Psychiatrist Schwartz pioneered the use of positron-emission tomography in studying obsessive-compulsive disorder (OCD). The behaviorists' therapeutic use of the often-harsh exposure and prevention method with OCD struck Schwartz as brutal and unproductive. Searching for a new approach, he gradually developed the four-step method that he and science writer Begley thoroughly describe here.

Employing the Buddhist idea of willful mindfulness, Schwartz and his colleagues enjoyed considerable research and clinical success. A long, informal collaboration with physicist Henry Stapp enabled Schwartz to overcome the problem of free will and moral action, and one of his major achievements was proving the neuroplasticity of the adult brain, thanks to which the formation of new transmission routes coincides with that of new neurons. Schwartz and Begley bring to life the thinking and work of many original investigators in a book that thoughtful readers will enjoy. -- William Beatty.

**RECOMMENDATION:** You can re-read this summary according to a *reinforcement schedule*, such as a few hours later and a few days later and then several times in the next week or two. This strategy can help you take advantage of the power of the *spaced-repetition method of memorization*. Such deep introspection can strengthen your willpower and change your adaptive self-identity to increase your self-esteem.

Remember always:
You are your adaptable memory!