110 Book Reviews

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3D Atlas of Neurologic Disorders. By Wieslaw L. Nowinski, Beng Choon Chua, and Su Hnin Wut Yi. New York, NY: Thieme Publishing Group; 2014. US \$299.99 (USB drive. Hardcover case). ISBN: 1626231737.

Want to take a look at cortical and subcortical structures at your own pace? Then this is perfect for you. The 3D Atlas of Neurologic Disorders is a handy complement to lectures or formal training in neuroanatomy and neurophysiology, particularly for those interested in pathological states such as stroke and cranial nerve lesions. The reader can visualize all structures, layering up to full musculature or down to just the neural networks or vasculature. The program allows studying of the structures by rotating them in several directions and orientations on the screen and zooming in or out. The reader can spend hours manipulating, labeling, and spinning the structures to get a closer look at complex structures inside the skull. After manipulating or labeling images, the reader may save them to a computer for later reference. Additionally, this program lets the reader print out PDFs of accompanying textbook material, including a 30-page glossary of pertinent terms, such as conjugate gaze palsy or hyperesthesia. It should be noted that there is no audio lecture or video tutorial component; so it is best-suited for the self-directed learner.

The atlas comes in a hard plastic case (the size of a DVD case) and has a USB drive inside, which has a swivel cap for protection and a metal loop on one end that can be attached to a lanyard. One important thing to note: this program is only compatible with a PC. Also, the software limits activation to just two computers, which may reduce its utility for students on the go or for those who rely on public computers. That said, 3D Atlas of Neurologic Disorders is a worthwhile study aid for those who want to take a deeper look at neurologic disorders at their own pace.

It is recommended for PC users engaged in formal teaching on neurologic disorders or for those needinga refresher course.

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The Mind's Machine: Foundations of Brain and Behavior, Second Edition. By Neil V. Watson and S. Marc Breedlove. Sunderland, MA: Sinauer Associates; 2016. US \$139.95 (Paperback). 471 pp.

ISBN: 978-1605352763.

The Mind's Machine: Foundations of Brain and Behavior is a comprehensive textbook that introduces the fundamental concepts of behavioral neuroscience.

Throughout the book, the theme of "neural plasticity" — the idea that physical and chemical changes in the brain result from every new experience and alter future behaviors — persists.

Watson and Breedlove use simple language to provide thorough but comprehensible coverage of behavioral neuroscience topics, and also include recent state-of-the-art advances in technologies that have allowed us to better understand healthy and pathological brain functioning.

The textbook is organized into three main subsections to provide a concrete introduction of the basics of biological psychology and how this complex brain system may dysfunction to produce different behaviors. The first section describes the basic biological components and functions of the nervous system, including how sensorimotor information is processed, and how hormones and other chemical compounds maintain or disrupt the balance of the nervous system. The second explains the capabilities of neural systems to perceive visual, olfactory, auditory, tactile, and taste stimuli, and how emotional and cognitive changes interfere with the system to produce certain pathologies in critical survival behaviors such feeding, sleeping, and sexual behaviors. The last section focuses on higher-level cognitive functions such as learning, memory, and development, which involve emotional and cognitive changes through complex processes.

The textbook ends with an appendix, glossary, references, author index, and subject index. The authors also include online material support such as quizzes, study guides, visual summaries, and a downloadable application with activities. Overall, the book describes how the brain adapts in perceiving various types of information and how this leads to the output of behaviors. This is important for understanding how the brain dysfunctions to produce neuropsychiatric diseases.

Best-suited for undergraduate and graduate students with diverse academic backgrounds, *The Mind's Machine: Foundations of Brain and Behavior* is an important addition to the fundamental understanding of how the brain's biological components produce behaviors.

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