Media and Book Reviews

BRAINS: HOW THEY SEEM TO WORK

by Dale Purves, 320 pp., FT Press Publishing, 2010, \$39.99

The last 50 years have witnessed a myriad of important and revolutionary advances in neuroscience. From the discovery of DNA structure by Watson and Crick to the description of ocular dominance columns by Hubel and Wiesel, neuroscientists have been redefining how the brain works. In *Brains: How They Seem to Work*, Dr. Dale Purves provides a provocatively personal account of this evolution in neuroscience (and of the respective neuroscientists) over the last 50 years.

Purves begins in the 1960s, describing the landscape of neurobiology as he entered medical school, and remarks on the relative infancy of the field. Taught by the fathers of neuroscience, he recalls the focus on animal models of cognitive physiology and reflects on his own struggle to balance a desire for understanding the brain with the pressures for a career in clinical medicine. He chronicles the early developments in the cellular and biochemical analysis of neural development, the action potential, and neural plasticity through his work and interactions

both in the United Kingdom and at Washington University. In 1990, he moved to Duke University, where he founded the Department of Neurobiology. Here he describes the birth of cognitive neuroscience and the renewal of investigations into brain function on a macroscopic level. The remainder of the book outlines Purves' own investigations into an empirical theory of perception. Purves argues and demonstrates how empirically derived associations between sensory patterns drive our perception of the world.

Targeted at those with a keen interest in the history of neurobiology and developments in cognitive neuroscience, this book is a fascinating chronicle of the last 50 years of neuroscience with a uniquely personal account of the scientists who made it all happen. While the specific chapters on the perception of color, geometry, and motion are at times weighted in basic science theory and algorithms, the book as a whole is an interesting review of the field and offers a unique perspective into a world not always encountered within clinical medicine.

Reviewed by Roy E. Strowd, MD

Disclosure: Dr. Strowd serves on the editorial team of the Resident & Fellow Section of Neurology®.

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