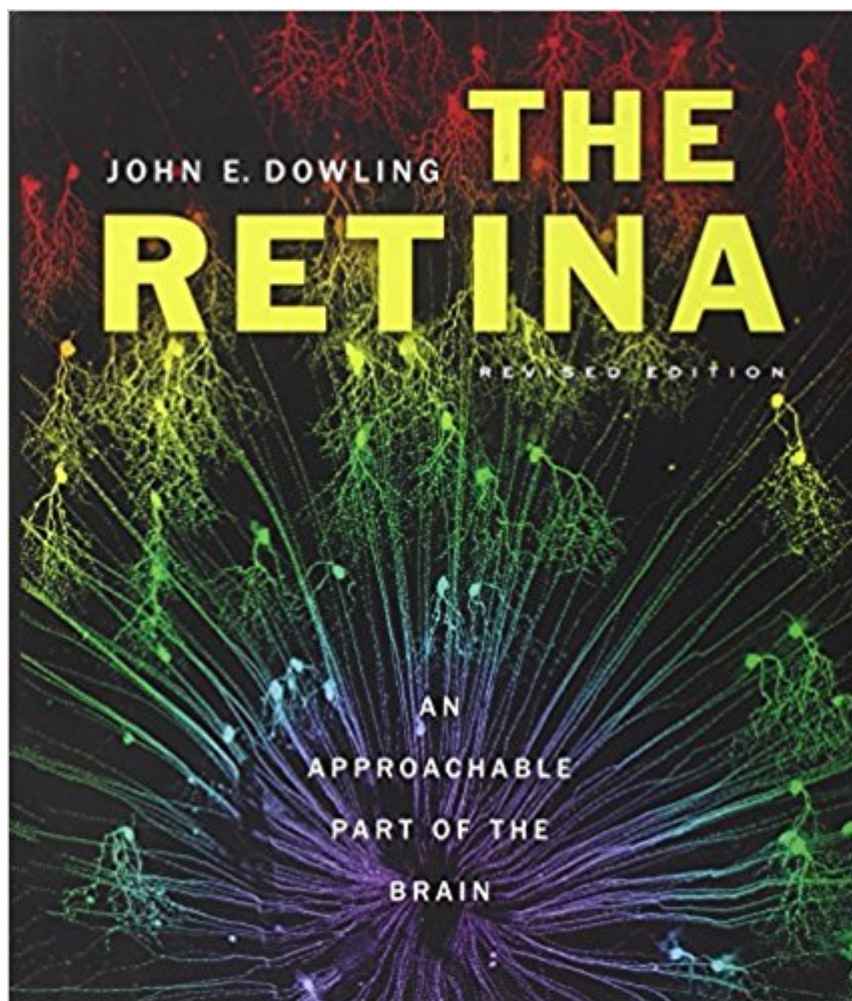


The book was found

The Retina: An Approachable Part Of The Brain, Revised Edition



Synopsis

John Dowling's *The Retina*, published in 1987, quickly became the most widely recognized introduction to the structure and function of retinal cells. In this Revised Edition, Dowling draws on twenty-five years of new research to produce an interdisciplinary synthesis focused on how retinal function contributes to our understanding of brain mechanisms. The retina is a part of the brain pushed out into the eye during development. It retains many characteristics of other brain regions and hence has yielded significant insights on brain mechanisms. Visual processing begins there as a result of neuronal interactions in two synaptic layers that initiate an analysis of space, color, and movement. In humans, visual signals from 126 million photoreceptors funnel down to one million ganglion cells that convey at least a dozen representations of a visual scene to higher brain regions. The Revised Edition calls attention to general principles applicable to all vertebrate retinas, while showing how the visual needs of different animals are reflected in their retinal variations. It includes completely new chapters on color vision and retinal degenerations and genetics, as well as sections on retinal development and visual pigment biochemistry, and presents the latest knowledge and theories on how the retina is organized anatomically, physiologically, and pharmacologically. The clarity of writing and illustration that made *The Retina* a book of choice for a quarter century among graduate students, postdoctoral fellows, vision researchers, and teachers of upper-level courses on vision is retained in Dowling's new easy-to-read Revised Edition.

Book Information

Hardcover: 384 pages

Publisher: Belknap Press; Revised edition (January 15, 2012)

Language: English

ISBN-10: 0674061543

ISBN-13: 978-0674061545

Product Dimensions: 8.5 x 1.3 x 9.8 inches

Shipping Weight: 2.4 pounds (View shipping rates and policies)

Average Customer Review: 5.0 out of 5 stars 1 customer review

Best Sellers Rank: #663,581 in Books (See Top 100 in Books) #115 in [Books > Textbooks > Medicine & Health Sciences > Medicine > Clinical > Ophthalmology](#) #158 in [Books > Medical Books > Medicine > Surgery > Ophthalmology](#) #508 in [Books > Textbooks > Medicine & Health Sciences > Medicine > Basic Sciences > Neuroscience](#)

Customer Reviews

Most attempts at generalizations about the retina require seemingly endless qualifications, not because of the retina's complexity, but because of the extensive number of experimental preparations used to study it, from hagfish to human, from tissue culture to in vivo preparations. Yet the advantage of studying the retina is that its output can be related directly to its natural input and this input can be controlled exquisitely. This is the take-home message of John Dowling's highly worthwhile and successful revision of his classic work. Like the first edition in its emphasis on an interdisciplinary approach, the new edition of *The Retina* offers the best overview available of what we know about the functional organization of the retina. (Stephen Yazulla, Ph.D., Professor of Neurobiology and Behavior, Professor of Ophthalmology, Stony Brook University) John Dowling's *The Retina* has been the most well-known and widely read introduction to the structure and function of retinal cells and circuits. This revised edition provides exciting new insights about the retina. This is a 'must read' for all retinal researchers. (Botond Roska, M.D., Ph.D., Senior Group Leader, Friedrich Miescher Institute for Biomedical Research.)

John E. Dowling is Gordon and Llura Gund Professor of Neurosciences at Harvard University, and Professor of Ophthalmology (Neuroscience) at Harvard Medical School. A member of the National Academy of Sciences, The American Philosophical Society, and The American Academy of Arts and Sciences, he also has won The Helen Keller Prize for Vision Research, the Paul Kayser International Eye Research Award of the International Society for Eye Research, and the Glenn A. Fry Medal in Physiological Optics.

It did

[Download to continue reading...](#)

The Retina: An Approachable Part of the Brain, Revised Edition
Happy Brain: 35 Tips to a Happy Brain: How to Boost Your Oxytocin, Dopamine, Endorphins, and Serotonin (Brain Power, Brain Function, Boost Endorphins, Brain Science, Brain Exercise, Train Your Brain)
Simple Applique: Approachable Techniques, Easy Methods, Beautiful Results!
TAKING THE FALL - The Complete Series: Part One, Part, Two, Part Three & Part Four
Sombras en la retina: De Nueva Delhi a BenarÃs. Un cuaderno de viaje (Cuadernos de viaje n.º 1) (Spanish Edition)
Ryan's Retina: 3 Volume Set, 6e Color Atlas and Synopsis of Clinical Ophthalmology -- Wills Eye Institute -- Retina (Wills Eye Institute Atlas Series)
Medical Retina: Update 2017 (ESASO Course Series, Vol. 9)
Brain Games #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) Brain Games #3: Lower Your Brain Age in Minutes a Day (Brain Games (Numbered)) Why Isn't My Brain Working?: A Revolutionary Understanding of Brain Decline and Effective Strategies to Recover Your Brain's Health 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). Blood-Brain Barrier in Drug Discovery: Optimizing Brain Exposure of CNS Drugs and Minimizing Brain Side Effects for Peripheral Drugs Music for Three, Vol. 1: SET of 3 Parts Baroque, Classical & Romantic Favorites - (includes Part 1 in C, Part 2 Viola, Part 3 Cello or Bassoon) A Colorful Introduction to the Anatomy of the Human Brain: A Brain and Psychology Coloring Book (2nd Edition) Our FAScinating Journey: Keys to Brain Potential Along the Path of Prenatal Brain Injury, Second Edition The Whole Brain Business Book, Second Edition: Unlocking the Power of Whole Brain Thinking in Organizations, Teams, and Individuals (Business Books) Exercises for the Brain and Memory : 70 Top Neurobic Exercises & FUN Puzzles to Increase Mental Fitness & Boost Your Brain Juice Today: (Special 2 In 1 Exclusive Edition) Train Your Brain & Mental Strength : How to Train Your Brain for Mental Toughness & 7 Core Lessons to Achieve Peak Mental Performance: (Special 2 In 1 Exclusive Edition)

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)