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★The Vision Revolution: How the Latest Research Overturns Everything We Thought We Knew About Vision

Mark Changizi. BenBella, \$24.95 (240P) 9781932100556

Scientist Changizi (*The Brain from 25,000 Feet*) kicks off this engaging romp through vision science with a list of the human eye's superpowers: "telepathy, X-ray vision, future-seeing and spirit-reading"; a "theoretical neuroscientist" trained in cognition and biology, he's not kidding. To expose these amazing abilities, and explain the whys of vision (the hows just "make my eyes glaze over"), he poses four challenging questions: "Why do we see in color? Why do our eyes face forward? Why do we see illusions? Why are letters shaped the way they are?" In his answers, Changizi challenges common notions regarding sight. Human color perception, for instance, is based around subtle changes in skin tone which correlate to blood flow, indicating emotions silently—allowing us, in essence, to read the minds of others. Binocular vision, it turns out, is not required for depth perception: in videos game, we "acrobatically navigate realistic virtual worlds as a cyclops." "Future-seeing capabilities" evolved in order to account for a one-tenth-of-a-second lag in perception. A friendly tone, colorful everyday examples and many helpful figures will draw readers—science buffs or not—down the rabbit hole of cognitive theory and keep them there, dazzled. 7 color images, 75 b&w illustrations. (June)