Visual Perception Essential Readings

More than any other textbook, Don and Sandra Hockenbury's Psychology relates the science of psychology to the lives of the wide range of students taking the introductory course. Now Psychology returns in a remarkable new edition that shows just how well-attuned the Hockenburys are to the needs of today's students and instructors.

Collects twenty five classic articles in visual perception, the articles span a century and include examples from disciplines that contribute to our current understanding of vision. Discussion questions and further reading suggestions follow.

The philosophy of perception is a microcosm of the metaphysics of mind. Its central problems—What is perception? What is the nature of perceptual consciousness? How can one fit an account of perceptual experience into a broader account of the nature of the mind and the world?—are at the heart of metaphysics. Rather than try to cover all of the many strands in the philosophy of perception, this book focuses on a particular orthodoxy about the nature of visual perception. The central problem for visual science has been to explain how the brain bridges the gap between what is given to the visual system and what is actually experienced by the perceiver. The orthodox view of perception is that it is a process whereby the brain, or a dedicated subsystem of the brain, builds up representations of relevant figures of the environment on the basis of information encoded by the sensory receptors. Most adherents of the orthodox view also believe that for every conscious perceptual state of the subject, there is a particular set of neurons whose activities are sufficient for the occurrence of that state. Some of the essays in this book defend the orthodoxy; most criticize it; and some propose alternatives to it. Many of the essays are classics. Contributors G.E.M. Anscombe, Dana Ballard, Daniel Dennett, Fred Dretske, Jerry Fodor, H.P. Grice, David Marr, Maurice Merleau-Ponty, Zenon Pylyshyn, Paul Snowdon, and P.F. Strawson

The three-volume set LNCS 8009-8011 constitutes the refereed proceedings of the 7th International Conference on Universal Access in Human-Computer Interaction, UAHCI 2013, held as part of the 15th International Conference on Human-Computer Interaction, HCII 2013, held in Las Vegas, USA in July 2013, jointly with 12 other thematically similar conferences. The total of 1666 papers and 303 posters presented at the HCII 2013 conferences was carefully reviewed and selected from 5210 submissions. These papers address the latest research and development efforts and highlight the human aspects of design and use of computing systems. The papers accepted for presentation thoroughly cover the entire field of human-computer interaction, addressing major advances in knowledge and effective use of computers in a variety of application areas. The total of 230 contributions included in the UAHCI proceedings were carefully reviewed and selected for inclusion in this three-volume set. The 78 papers included in this volume are organized in the following topical sections: age-related issues, human vision in universal access, emotions and persuasion in universal access, design for autistic spectrum disorders, cognitive issues for universal access, universal access to the Web and social communities.

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The monochrome—a single-color work of art—is highly ambiguous. For some it epitomizes purity and is art reduced to its essence. For others it is just a stunt, the proverbial emperor's new clothes. Why are monochrome works both so admired and such an easy target of scorn? Why does a monochrome look so simple and yet is so challenging to comprehend? And what is it that drives artists to create such works? In this illuminating book, Simon Morley unpacks the meanings of the monochrome as it has developed internationally over the twentieth century to

today. In doing so, he also explores how artists have understood what they make, how critics variously interpret it, and how art is encountered by viewers.

Samples important developments in the field of visual perception over the last twenty years, featuring a dozen articles written by experts in the field

The editors present seminal texts in cognitive psychology, providing students with the opportunity to learn about the details of experimental studies that have had a major influence on the development of this discipline.

In attempting to understand and explain various behaviour, events, and phenomena in their field, psychologists have developed and enunciated an enormous number of 'best guesses' or theories concerning the phenomenon in question. Such theories involve speculations and statements that range on a potency continuum from 'strong' to 'weak'. The term theory, itself, has been conceived of in various ways in the psychological literature. In the present dictionary, the strategy of lumping together all the various traditional descriptive labels regarding psychologists 'best guesses' under the single descriptive term theory has been adopted. The descriptive labels of principle, law, theory, model, paradigm, effect, hypothesis and doctrine are attached to many of the entries, and all such descriptive labels are subsumed under the umbrella term theory. The title of this dictionary emphasizes the term theory (implying both strong and weak best guesses) and is a way of indication, overall, the contents of this comprehensive dictionary in a parsimonious and felicitous fashion. The dictionary will contain approximately 2,000 terms covering the origination, development, and evolution of various psychological concepts, as well as the historical definition, analysis, and criticisms of psychological concepts. Terms and definitions are in English. *Contains over 2,000 terms covering the origination, development and evolution of various psychological concepts *Covers a wide span of theories, from auditory, cognitive tactile and visual to humor and imagery *An essential resource for psychologists needing a single-source quick reference

The new photo-illustrated magazines of the 1920s traded in images of an ideal modernity, promising motorised leisure, scientific progress, and social and sexual emancipation. Modernist Magazines and the Social Ideal is a pioneering history of these periodicals, focusing on two of the leading European titles: the German monthly UHU, and the French news weekly VU, taken as representative of the broad class of popular titles launched in the 1920s. The book is the first major study of UHU, and the first scholarly work on VU in English. The book explores, in particular, the striking use of regularity and repetition in photographs of modernity, reading these repetitious images as symbolic of modernist ideals of social order in the aftermath of the First World War. Alongside the UHU and VU case studies, Modernist Magazines offers an essential primer to interwar magazine culture in Europe. Accounts of rival titles are woven into the book's thematic chapters, which trace the evolution of the two magazines' photography and graphic design in the tumultuous years up to 1933.

This handbook provides a comprehensive review of social cognition, ranging from its history and core research areas to its relationships with other fields. The 43 chapters included are written by eminent researchers in the field of social cognition, and are designed to be understandable and informative to readers with a wide range of backgrounds.

Team collaboration involves many operational tasks such as team decision-making or course of action selection, developing shared understanding, and intelligence analysis. These operational tasks must be performed in many situations, often under severe time pressure, with information and knowledge uncertainty, large amounts of dynamic information and across different team characteristics. Recent research in this area has focused on various aspects of human collaborative decision-making and the underlying cognitive processes while describing those processes at different levels of detail, making it difficult to compare research results. The theoretical construct of 'macrocognition in

teams' was developed to facilitate cognitive research in team collaboration, which will enable a common level of understanding when defining, measuring and discussing the cognitive processes in team collaboration. Macrocognition is defined as both the internalized and externalized mental processes employed by team members in complex, one-of-a-kind, collaborative problem solving. Macrocognition in Teams provides readers with a greater understanding of the macrocognitive processes which support collaborative team activity, showcasing current research, theories, methodologies and tools. It will be of direct relevance to academics, researchers and practitioners interested in group/team interaction, performance, development and training.

Check out a preview. More than any other introductory psychology textbook, the Hockenburys' brief book is the one in which students see themselves – and the world they live in. The new edition builds on that distinction, presenting the discipline with a unique understanding of today's students in all their diversity, emphasizing the field's immediate impact on their lives. Without sacrificing science, Don and Sandy Hockenbury draw on personal experiences and anecdotes to illustrate essential concepts and important research directions. FREE PACKAGE ITEMS WITH THIS EDITION UPON ORDERING The Discovering Psychology eBook, Online Study Center, or Study Guide can be packaged FREE with this new edition: Discovering Psychology and Study Guide ISBN-13: 978-1-4292-1749-1 Discovering Psychology and Online Study Center ISBN-13: 978-1-4292-4697-2

This book explores the science of touch. It brings together the latest findings from cognitive neuroscience about the processing of tactile information in humans. The book provides a comprehensive overview of scientific knowledge regarding themes such as tactile memory, tactile awareness (consciousness), tactile attention, the role of touch in interpersonal and sexual interactions, and the neurological substrates of touch. It highlights the many ways in which ourgrowing understanding of the world of touch can, and in some cases already are, being applied in the real world in everything from the development of virtual reality (VR) environments, tablet PCs,mobile phones, and even teledildonics - the ultimate frontier in terms of adult entertainment. For students and researchers in the brain sciences, this book is presents a valuable and fascinating exploration into one of our least understood senses

First Published in 2001. Routledge is an imprint of Taylor & Francis, an informa company.

If you've ever been tricked by an optical illusion, you'll have some idea about just how clever the relationship between your eyes and your brain is. This book leads one through the intricacies of the subject and demystifying how we see.

Familiarity underpins our engagement with music. This book highlights theoretical and empirical considerations about familiarity from three perspectives: listening, musicology and performance. Part I, 'Listening', addresses familiarity as it relates to listeners' behaviour and responses to music, specifically in regulating our choice and exposure to music on a daily basis; how we get to know music through regular listening; how comfortable we feel in a Western concert environment; and music's efficacy as a pain-reliever. Part II, 'Musicology' exposes the notion of familiarity from varied stances, including appreciation of music in our own and other cultures through ethnomusicology; exploration of the perception of sounds via music analysis; philosophical reflection on the efficiency of communication in musicology; evaluation of the impact of researchers' musical experiences on their work; and the influence of familiarity in music education. Part III, 'Performance', focuses on the effects of familiarity in relation to different aspects of Western art and

popular performance, including learning and memorizing music; examination of 'groove' in popular performance; exploration of the role of familiarity in shaping socio-emotional behaviour between members of an ensemble; and consideration about the effects of the unique type of familiarity gained by musicians through the act of performance itself. In Grounding in Chinese Written Narrative Discourse Wendan Li offers a comprehensive account of how Chinese, as a morphologically challenged language, uses grammatical means to highlight (or foreground) major events of a narrative and to demote (or background) other supporting descriptions.

"In Integrating the New Science of Love and a Spirituality of Peace, the contributors explore the intersection between the science of attachment theory and the vision of Anabaptism. What emerges is a deeper sense of what it means to be human and a hope for a different tomorow, inspired by the kingdom of God as preached by Jesus of Nazareth."

Theories of Visual Perception 3rd Edition provides clear critical accounts of several of the major approaches to the challenge of explaining how we see the world. It explains why approaches to theories of visual perception differ so widely and places each theory into its historical and philosophical context. Coverage ranges from early theories by such influential writers as Helmholtz and the Gestalt School, to more recent work in the field of Artificial Intelligence. This fully revised and expanded edition contains new material on the Minimum Principle in perception, neural networks, and cognitive brain imaging.

More than any other psychology textbook, Don and Sandra Hockenbury's Psychology relates the science of psychology to the lives of the wide range of students taking the introductory course. Now Psychology returns in a remarkable new edition that shows just how well-attuned the Hockenburys are to the needs of today's students and instructors. Psychology began with a basic idea: combine scientific authority with a narrative that engages students and relates to their lives. From decades of experience teaching, the Hockenburys created a book filled with cutting-edge science and real-life stories that draw students of all kinds into the course.

The motifs of island and shipwreck have been present in literature and the arts from ancient times. The essays in this volume explore shipwreck and island figures together in literary texts, films, Reality TV, music, and art.

With contributions by Michael Ashikhmin, Michael Gleicher, Naty Hoffman, Garrett Johnson, Tamara Munzner, Erik Reinhard, Kelvin Sung, William B. Thompson, Peter Willemsen, Brian Wyvill. The third edition of this widely adopted text gives students a comprehensive, fundamental introduction to computer graphics. The authors present the mathematical foundations of computer graphics with a focus on geometric intuition, allowing the programmer to understand and apply those foundations to the development of efficient code. New in this edition: Four new contributed chapters, written by experts in their fields: Implicit Modeling, Computer Graphics in Games, Color, Visualization, including information

visualization Revised and updated material on the graphics pipeline, reflecting a modern viewpoint organized around programmable shading. Expanded treatment of viewing that improves clarity and consistency while unifying viewing in ray tracing and rasterization. Improved and expanded coverage of triangle meshes and mesh data structures. A new organization for the early chapters, which concentrates foundational material at the beginning to increase teaching flexibility.

The field of computer vision combines techniques from physics, mathematics, psychology, artificial intelligence, and computer science to examine how machines might construct meaningful descriptions of their surrounding environment. The editors of this volume, prominent researchers and leaders of the SRI International AI Center Perception Group, have selected sixty papers, most published since 1980, with the viewpoint that computer vision is concerned with solving seven basic problems: Reconstructing 3D scenes from 2D images Decomposing images into their component parts Recognizing and assigning labels to scene objects Deducing and describing relations among scene objects Determining the nature of computer architectures that can support the visual function Representing abstractions in the world of computer memory Matching stored descriptions to image representation Each chapter of this volume addresses one of these problems through an introductory discussion, which identifies major ideas and summarizes approaches, and through reprints of key research papers. Two appendices on crucial assumptions in image interpretation and on parallel architectures for vision applications, a glossary of technical terms, and a comprehensive bibliography and index complete the volume.

This is a comprehensive and up-to-date presentation of the processes by which biological systems, most notably the nervous system, affect behaviour. A fantastic art program, an applauded accessible writing style and a host of pedagogical features make the text relevant to the lives of the students taking biological psychology.

Sensation and Perception covers in detail the perceptual processes related to vision and hearing, taste and smell, touch and pain as well as the vestibular and proprioceptive systems. Individual chapters cover separate topics including the fast-developing areas of perception of emotions and attractiveness and recognition of faces, plus newer topics not seen regularly in other textbooks, for example changes in perception throughout the lifespan and pathologies of perception. Key features: Chapters begin with summaries of key topics and questions to aid learning Includes key points, spotlights on research, and 'Thinking about Research' sections, designed to encourage students to design their own studies Chapters close with 'Test Yourself' questions, a review of key terms and annotated further readings A Companion Website offers additional resources for lecturers and students available on publication at: www.sagepub.co.uk/harris Electronic inspection copies are available for instructors.

Why do people find monkeys and apes so compelling to watch? One clear answer is that they seem so similar to us—a window into our own minds and how we have evolved over millennia. As Charles Darwin wrote in his Notebook, "He who understands baboon would do more toward metaphysics than Locke." Darwin recognized that behavior and cognition, and the neural architecture that support them, evolved to solve specific social and ecological problems. Defining these problems for neurobiological study, and conveying neurobiological results to ethologists and psychologists, is fundamental to an evolutionary understanding of brain and behavior. The goal of this book is to do just that. It collects, for the first time in a single book, information on primate behavior and cognition, neurobiology, and the emerging discipline of neuroethology. Here leading scientists in several fields review work ranging from primate foraging behavior to the neurophysiology of motor control, from vocal communication to the functions of the auditory cortex. The resulting synthesis of cognitive, ethological, and neurobiological approaches to primate behavior yields a richer understanding of our primate cousins that also sheds light on the evolutionary development of human behavior and cognition.

A comprehensive history and A-Z bibliography of books on colour published in European languages between 1495 and 2015 on all branches the arts, sciences, education, design and technology. An invaluable reference for locating information and research into colour theory and practice.

Via 100 entries, 21st Century Psychology: A Reference Handbook highlights the most important topics, issues, questions, and debates any student obtaining a degree in the field of psychology ought to have mastered for effectiveness in the 21st century. This two-volume reference resource, available both in print and online, provides an authoritative source to serve students' research needs with more detailed information than encyclopedia entries but without the jargon, detail, or density found in a typical journal article or a research handbook chapter. Students will find chapters contained within these volumes useful as aids toward starting research for papers, presentations, or a senior thesis, assisting in deciding on areas for elective coursework or directions for graduate studies, or orienting themselves toward potential career directions in psychology.

Drawing on an impressive roster of experts in the field, Fundamentals of Computer Graphics, Fourth Edition offers an ideal resource for computer course curricula as well as a user-friendly personal or professional reference. Focusing on geometric intuition, the book gives the necessary information for understanding how images get onto the screen by using the complementary approaches of ray tracing and rasterization. It covers topics common to an introductory course, such as sampling theory, texture mapping, spatial data structure, and splines. It also includes a number of contributed chapters from authors known for their expertise and clear way of explaining concepts. Highlights of the Fourth Edition Include: Updated coverage of existing topics Major updates and improvements to several chapters, including texture

mapping, graphics hardware, signal processing, and data structures A text now printed entirely in four-color to enhance illustrative figures of concepts The fourth edition of Fundamentals of Computer Graphics continues to provide an outstanding and comprehensive introduction to basic computer graphic technology and theory. It retains an informal and intuitive style while improving precision, consistency, and completeness of material, allowing aspiring and experienced graphics programmers to better understand and apply foundational principles to the development of efficient code in creating film, game, or web designs. Key Features Provides a thorough treatment of basic and advanced topics in current graphics algorithms Explains core principles intuitively, with numerous examples and pseudo-code Gives updated coverage of the graphics pipeline, signal processing, texture mapping, graphics hardware, reflection models, and curves and surfaces Uses color images to give more illustrative power to concepts

This book provides an introduction to human visual perception suitable for readers studying or working in the fields of computer graphics and visualization, cognitive science, and visual neuroscience. It focuses on how computer graphics images are generated, rather than solely on the organization of the visual system itself; therefore, the text pro

How does the brain piece together the information required to achieve object recognition, figure-ground segmentation, object completion in cases of partial occlusion and related perceptual phenomena? This book focuses on principles of Gestalt psychology and the key issues which surround them, providing an up-to-date survey of the most interesting and highly debated topics in visual neuroscience, perception and object recognition. The volume is divided into three main parts: Gestalt and perceptual organisation, attention aftereffects and illusions, and color vision and art perception. Themes covered in the book include: - a historical review of Gestalt theory and its relevance in modern-day neuroscience - the relationship between perceptive and receptive fields - a critical analysis of spatiotemporal unity of perception - the role of Gestalt principles in perceptual organization - self-organizing properties of the visual field - the role of attention and perceptual grouping in forming non-retinotopic representations - figural distortions following adaptation to spatial patterns - illusory changes of brightness in spatial patterns - the function of motion illusions as a tool to study Gestalt principles in vision - conflicting theories of color vision and the neural basis of it - the role of color in figure-ground segmentation - chromatic assimilation in visual art and perception - the phenomena of colored shadows. Including contributions from experts in the field, this book will provide an essential overview of current research and theory on visual perception and Gestalt. It will be key reading for researchers and academics in the field of visual perception and neuroscience.

Written by acclaimed researcher and teacher Steven Yantis, Sensation and Perception shows students how scientists investigate and understand sensory and perceptual phenomena today. Like no other textbook for the course, it integrates classic and current

research—including the latest developments in cognitive neuroscience and brain imaging—into a highly accessible portrait of the field's defining principles and experiments. Engagingly written, filled with outstanding art (including 3-D images), and supported by dozens of interactive visual demonstrations devised by the author, it is your students' gateway to the forefront of research in sensation and perception.

Eye-Tracking for Visual Marketing examines the structure of the eye, the visual brain, eye-movements, and methods for recording and analyzing them. It describes the authors' theory and reviews eye-tracking applications in marketing based on this theory.

Discusses the visual aspects of sports and explains how players mentally shape and react to what they see

Infant Development: The Essential Readings provides students with a selection of some of the key articles by key researchers in this core area of developmental psychology and introduces the reader to the field of infancy research and to some of the current, lively controversies within this area.

The cognitive and neural sciences have been on the brink of a paradigm shift for over a decade. The traditional information-processing framework in psychology, with its computer metaphor of the mind, is still considered to be the mainstream approach, but dynamical-systems accounts of mental activity are now receiving a more rigorous treatment, allowing them to more beyond merely brandishing trendy buzzwords. The Continuity of the Mind will help to galvanize the forces of dynamical systems theory, cognitive and computational neuroscience, connectionism, and ecological psychology that are needed to complete this paradigm shift. In The Continuity of the Mind Michael Spivey lays bare the fact that comprehending a spoken sentence, understanding a visual scene, or just thinking about the days events involves the serial coalescing of different neuronal activation patterns, i.e., a state-space trajectory that flirts with a series of point attractors. As a result, the brain cannot help but spend most of its time instantiating patterns of activity that are in between identifiable mental states rather than in them. When this scenario is combined with the fact that most cognitive processes are richly embedded in their environmental context in real time, the state space (in which brief visitations of attractor basins are your thoughts) suddenly encompasses not just neuronal dimensions, but extends to biomechanical and environmental dimensions as well. As a result, your moment-by-moment experience of the world around you, even right now, can be described as a continuous trajectory through a high-dimensional state space that is comprised of diverse mental states. Spivey has arranged The Continuity of the Mind to present a systematic overview of how perception, cognition, and action are partially overlapping segments of one continuous mental flow, rather than three distinct mental systems. The initial chapters provide empirical demonstrations of the gray areas in mental activity that happen in between discretely labeled mental events, as well as geometric visualizations of attractors in state space that make the dynamical-systems framework seem less mathematically abstract. The middle chapters present scores of behavioral and neurophysiological studies that portray the continuous temporal dynamics inherent in categorization, language comprehension, visual perception, as well as attention, action, and reasoning. The final chapters conclude with discussions of what the mind itself must look like if its activity is continuous in time and its contents are distributed in state space.

II. Sensation, Perception & Attention: John Serences (Volume Editor) (Topics covered include taste; visual object recognition; touch; depth perception; motor control; perceptual learning; the interface theory of perception; vestibular, proprioceptive, and haptic contributions to spatial orientation; olfaction; audition; time perception; attention; perception and interactive technology; music perception; multisensory integration; motion perception; vision; perceptual rhythms; perceptual organization; color vision; perception for action; visual search; visual cognition/working memory.)