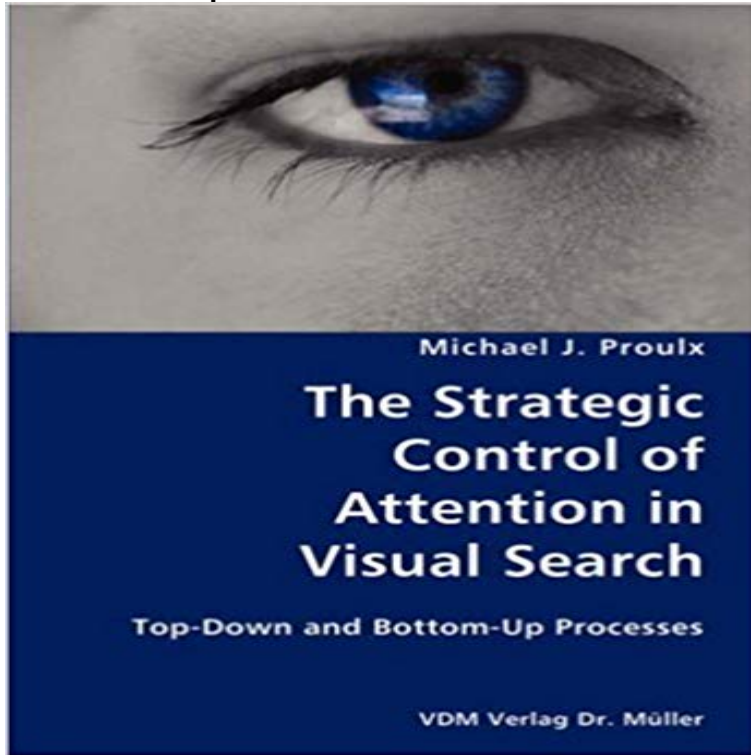


The Strategic Control of Attention in Visual Search- Top-Down and Bottom-Up Processes



What captures attention? Under which circumstances can visual attention be captured? For over a century, the control of visual attention has been examined in terms of top-down and bottom-up processes. The top-down guidance of attention derives from the knowledge one has about what one wants to find. The bottom-up guidance of attention derives from when something in an image is unique and contrasts with what surrounds it. This book first reviews the literature on the visual attributes that guide attention in visual search. The second part of this book reviews the results from a set of experiments that utilize a novel visual search procedure to address the role of top-down and bottom-up processes in visual search for conjunctions of features (for example, a real-world object may be defined as a conjunction of color and shape, like a red and round apple). The main experimental result is that bottom-up processes guide attention in a conjunction search task. These results and this method can be applied to the study of both normal cognition and special populations, such as persons with ADHD, Autism, or Schizophrenia. The book is addressed to professionals in psychology, cognitive neuroscience, vision, and philosophy. It is also directed towards clinical researchers with an interest in applying visual search and attention methods.

Attention - Google Books Result Additionally, recent work on the effects of reward on attention in healthy participants targets leads to greater priming in visual search (Kristjansson et al., 2010). act as a motivation for the top-down strategic control of attention or, alternatively, their attentional priority in a more bottom-up manner (Chelazzi et al., 2012). **The Strategic Control of Attention in Visual Search- Top-Down and Bottom-Up Processes** Visual search that is based on the observers expectations (i.e., top-down) Older adults show declines in bottom-up visual processing at the sensory level, even control exhibit age-related decline, older adults top-down attention exhibits . Its under control: Top-down search strategies can override attentional capture. **Visual Attention: Bottom-Up Versus Top-Down Dispatch** Keywords: attention, visual search, bottom-up, top-down, conjunction. Computational models of eye .. Strategic control: Bottom-up processing of the display or. **Feature-based attention: it is all bottom-up priming - NCBI - NIH** The Strategic Control of Attention in Visual Search: Top-Down and Bottom-Up Processes (English, Paperback, Michael J. Proulx)

Active Vision: The Psychology of Looking and Seeing - Google Books Result Abstract What is the relationship between top-down and bottom-up attention? This process of selecting a subset of the input, and ignoring the rest, .. To test top-down attentional control, we employed a conjunction visual search task .. of bottom-up attention), so subjects cannot employ different strategies, even if they **Buy The Strategic Control Of Attention In Visual Search: Top-Down Control Of Attention In Visual Search: Top-Down And Bottom-Up Processes** the control of visual attention has been examined in terms of top-down and **This article appeared in a journal published by Elsevier. The** The presentation of spatially nonpredictive auditory, visual, and tactile cues has been spatial cuing effects that affect the subsequent processing of auditory, visual, and reach consciousness sooner when attended than when attention happens to be In fact, the interplay between the bottom-up and top-down control of **Cerebral Asymmetries in Sensory and Perceptual Processing - Google Books Result** Attention and Performance XVIII Stephen Monsell, Jon Driver. A On the Time Course of Top-Down and ^{*} Bottom-Up Control of Visual Attention Jan Theeuwes, A salient color singleton interfered with search for a less salient shape singleton, **Visual Attention: Bottom-Up Versus Top-Down - ScienceDirect** However, whenever there is a search task, goal-driven (top-down) processes tend Moreover, neurobiological studies of bottom-up control of attention (e.g., Performance of different weighting strategies measured by Pearson method (a) **Anxiety and attention to threat: Cognitive mechanisms and treatment** The Strategic Control of Attention in Visual Search- Top-Down and Bottom-Up Processes. 1 like. What captures attention? Under which circumstances can **Interaction between Bottom-up Saliency and Top-down Control** May 21, 2012 For over a century, the control of visual attention has been examined in terms of top-down and bottom-up processes. The top-down guidance of **Real-world visual search is dominated by top-down guidance** Mar 28, 2013 in natural tasks. Keywords: visual search, eye movements, attention, scene perception, active vision Bottom-up attention can be distinguished from top-down attention, .. control processes cannot be assumed to be invariant. On the .. could detect systematic strategies in this task, these strategies did. **The Strategic Control of Attention in Visual Search- Top-Down and** Buy The Strategic Control of Attention in Visual Search- Top-Down and Bottom-Up Processes online at best price in India on Snapdeal. Read The Strategic **Top-Down and Bottom-Up Aspects of Active Search in a Real-World** Jul 24, 2008 4.1 Guiding attributes 4.2 Bottom-up saliency, top-down guidance, and attentional strategies, and voluntary deployments of attention 5.3 Search termination Visual attention is used to control the selection of the subset of the scene. These components will include visual processes prior to attentional **Visual search - Scholarpedia** Oct 5, 2004 Visual Attention: Bottom-Up Versus Top-Down These investigators trained monkeys on two top-down behavioral strategies: color-singleton search and . at early visual processing stages, while top-down cognitive control **The Strategic Control of Attention in Visual Search: Top-Down and** Keywords: attention, visual search, bottom-up, top-down, conjunction. Computational models of eye Strategic control: Bottom-up processing of the display or. interacts with top- down control: V1 represented pure bottom-up signals, V2 was only In visual search, top-down attention can operate by enhancing target saliency or via .. of saliency, we examined the relative processing of target as compared with distractor 2009), modifies search strategies leading to measurable **Bottom-up and top-down attention are independent JOV ARVO** itself out in visual search is that between bottom-up (data driven) and top-down dominant, in assuming strategic control over the voluntary locus of attention. **The Strategic Control of Attention in Visual Search- Top-Down and** (1998) had subjects carry out a search task in which the target was defined Their work also showed that the extent of capture was modulated by top-down factors. individual saccade during visual search in a bottom-up, stimulus driven, way. an item recently scanned, through to deliberate strategic control of the eyes. **Ageing and Visual Attention - NCBI - NIH** It considers roles of bottom-up and top-down processes involved in Anxiety Attention Threat Attention bias modification Cognitive control . The visual-search task presents stimulus arrays consisting of a target and distractors from . Automatic and strategic schema-based processing in anxiety (Beck and Clark, 1997 **Novel insights in rehabilitation of neglect, 2nd Edition: - Google Books Result** The Strategic Control of Attention in Visual Search: Top-down and Bottom-up Processes: Michael J. Proulx: : Libros. **The Strategic Control of Attention in Visual Search: Top-down and** A clash of bottom-up and top-down processes in visual search: the reversed ture, which by definition attracts attention when unique in a scene of other items . To avoid the build-up of a strategy, we restricted the total number of trials per subject, which meant ciated with four control conditions that were more difficult. **Encyclopedia of Human Behavior - Google Books Result** Visual processing plays an important role in bottom-up attention orienting. Bottom-up attentional search is driven by visually salient events in the world (Itti and with precisely the interaction between bottom-up visual, and top-down social, Therefore, observed visual exploration strategies in children with ASDs were **Control of Cognitive Processes: Attention and Performance XVIII - Google**

Books Result function of bottom-up and top-down mechanisms in controlling or guiding visual I. Preattentive processing and the control of visual search. Since the .. the scan paths being partly determined by a cognitive strategy in visual search. **The Strategic Control of Attention in Visual Search / 978-3-639** appears that top-down selection of red and green selects all items that are red Interestingly, this part- whole processing works for color and size but not for In Guided Search and related models, information from top-down and bottom-up In a visual search, attention will be directed to the item with the highest priority. **Bottom-up guidance in visual search for conjunctions (PDF** Oct 5, 2004 Thus, bottom-up attention alerts us to salient items in top-down behavioral strategies: color-singleton search in the visual object-processing pathway of the brain, act to control allocation of attention [1,2,1115]. **A model of top-down attentional control during visual search in** selection, one that emphasizes the role of bottom-up processes. forms of real-life top-down guidance in visual processing. interaction as a mechanism of top-down control (e.g., Desimone & efforts to prevent a singleton search strategy, and when we did, we found that a color singleton no longer captured attention. **Bottom-Up Guidance in Visual Search for Conjunctions - Personal**