

Contents

	Preface	ix
	Acknowledgments	xi
1	Introduction	1
I	CONCEPTUAL ISSUES IN STUDYING CONSCIOUS AND UNCONSCIOUS VISUAL PROCESSES	9
2	Microgenesis of Perception: Conceptual, Psychophysical, and Neurobiological Aspects Talis Bachmann	11
3	Neural Correlates and Levels of Conscious and Unconscious Vision Bruno G. Breitmeyer and Petra Stoerig	35
II	NEUROPHYSIOLOGICAL CORRELATES OF DYNAMIC PROCESSING IN VISION	49
4	Grasping the Past and Present: When Does Visuomotor Priming Occur? Melvyn A. Goodale, Jonathan S. Cant, and Grzegorz Króliczak	51
5	The Cortical Processing Dynamics of Edge Detection and Scene Segmentation H. Steven Scholte, Jacob Jolij, and Victor A. F. Lamme	73
6	Consciousness Absent and Present: A Neurophysiological Exploration of Masking Edmund T. Rolls	89

III	VISUAL MASKING AND THE DYNAMICS OF VISION	109
7	Computational Models of Visual Masking Gregory Francis and Yang Seok Cho	111
8	A Reentrant View of Visual Masking, Object Substitution, and Response Priming James T. Enns, Alejandro Lleras, and Vince Di Lollo	127
9	Dynamics of Perceptual Epochs Probed by Dissociation Phenomena in Masking Haluk Ögmen, Bruno G. Breitmeyer, and Harold E. Bedell	149
10	Backward Masking in Schizophrenia: Neuropsychological, Electrophysiological, and Functional Neuroimaging Findings Jonathan K. Wynn and Michael F. Green	171
IV	TEMPORAL ASPECTS OF ATTENTION	185
11	The Operation of Attention—Millisecond by Millisecond—Over the First Half Second Steven J. Luck	187
12	Competition for Attention in Space and Time: The First 200 ms Mary C. Potter	207
13	Effects of Masked Stimuli on Attention and Response Tendencies as Revealed by Event-Related EEG Potentials: Possible Application to Understanding Neglect Rolf Verleger and Piotr Jaśkowski	225
V	TEMPORAL CHARACTERISTICS OF FEATURE AND OBJECT PERCEPTION	243
14	Perceptual Consequences of Timing Differences Within Parallel Feature-Processing Systems in Human Vision Harold E. Bedell, Saamil S. Patel, Susana T. L. Chung, and Haluk Ögmen	245
15	The Relationship of Visual Masking and Basic Object Recognition in Healthy Observers and Patients with Schizophrenia Michael H. Herzog	259

16	Neural Mechanisms Underlying Temporal Aspects of Conscious Visual Perception	275
	Wei Ji Ma, Fred Hamker, and Christof Koch	
VI	THE DYNAMIC RELATION OF UNCONSCIOUS AND CONSCIOUS PROCESSES IN VISION	295
17	Response Priming With and Without Awareness	297
	Jens Schwarzbach and Dirk Vorberg	
18	Visual Masking Reveals Differences Between the Nonconscious and Conscious Processing of Form and Surface Attributes	315
	Bruno G. Breitmeyer and Haluk Ögmen	
19	The Cognitive Neuroscience of Unconscious and Conscious Vision	335
	Tony Ro	
20	Epilogue	353
	Glossary	357
	References	361
	Contributors	403
	Index	407