

1	A Model of Consciousness	1
	E. ROY JOHN	
	I. Levels of Information	3
	II. A Personal Research Strategy	8
	III. EEG Studies	10
	A. Changes in Synchrony	10
	B. Tracer Technique	11
	IV. Average Evoked Potentials	14
	A. Appearance of New Components and Increased Similarity of AERs from Different Brain Regions during Learning	15
	B. Readout to Absent but Expected Events	15
	C. Propagation of Readout from Central Structures	17
	D. Differential Readout in Differential Generalization	17
	E. AER Correlates of "Meaning" in Human Perception	21
	F. Anatomical Distribution of the "Engram"	24
	V. Unit Studies	26
	VI. Brain Stimulation Studies	31
	A. Rapid Transfer to Direct Electrical Stimulation of the Brain	32
	B. Peripheral-Central Conflict	32
	C. Perceptual Integration	33
	D. Loci Responsible for Perceptual Integration	33
	E. Role of Cortex and Thalamic Reticular Nuclei	35
	VII. Theoretical Discussion of Electrophysiological Evidence	38
	References	46

4 Neodissociation Theory of Multiple Cognitive Control Systems 137

ERNEST R. HILGARD

- I. Pierre Janet's Theory of Dissociation 138
- II. Why a Neodissociation Theory? 141
- III. The Hypnotic Model 142
- IV. Neodissociation Model of Multiple Cognitive Control Structures 145
- V. Empirical Approaches to Multiple Control Structures and Divisions of Consciousness 152
- VI. The Duality of Responsiveness to Pain as Related to Neodissociation Theory 157
- VII. Conclusion 168
- References 169

5 Hypnotic Susceptibility, EEG-Alpha, and Self-Regulation 173

DAVID R. ENGSTROM

- I. Introduction 173
- II. The Assessment of Hypnotic Susceptibility 175
 - A. Early Objectification 175
 - B. Modern Hypnotic Susceptibility Scales 176
- III. Stability of Hypnotic Susceptibility 180
- IV. Modification of Hypnotic Susceptibility 181
- V. Hypnotic Susceptibility and Personality 182
 - A. Age and Development 183
 - B. Motivation 184
- VI. Hypnosis and the EEG 185
- VII. EEG and Hypnotic Susceptibility: Indirect Relationships 187
 - A. Age 187
 - B. Perceptual or Sensory Deprivation 188
- VIII. EEG and Hypnotic Susceptibility: Direct Evidence 189
 - A. Base-Rate Alpha Density 189
 - B. Base-Rate Alpha Amplitude 191
 - C. EEG Asymmetry 192
 - D. Evoked Potentials 192
 - E. Conclusion 192

IX. The Stability of EEG Base Rates	193
X. Increasing Susceptibility by EEG Feedback	195
XI. Changes in EEG during Hypnosis	203
XII. Task-Specific EEG Changes	207
XIII. Conclusions	215
References	217

6 Toward a Cognitive Theory of Self-Control 223

DONALD MEICHENBAUM

I. Introduction	223
II. Conclusions from Treatment	224
A. How Shall We Treat Our Clients' Cognitions?	225
B. Cognitions as Final Common Pathways	238
C. Initial, Conceptualization Phase of Therapy	239
III. A Cognitive Theory of Self-Control	243
A. A Three-Stage Process	243
B. How Does Behavior Change through Internal Dialogue?	248
IV. Summary	253
References	255

7 Physiological and Cognitive Processes in the Regulation of Anxiety 261

THOMAS D. BORKOVEC

I. A Descriptive Model of Anxiety Process	264
A. Current Stimulus Conditions	264
B. The Immediate Anxiety Reaction	266
C. Subsequent Maintaining and Reducing Reactions	268
D. Intervention Strategies	272
II. Research Studies on the Maintenance and Reduction of Anxiety	276
A. The Role of Physiological Arousal and Cognition	279
B. The Role of Individual Differences in Physiological Arousal and Autonomic Perception	289
III. Summary and Conclusions	305
References	308

8 Dreaming: Experimental Investigation of Representational and Adaptive Properties 313

DAVID B. COHEN

- I. Dream Recall 313
 - A. The Role of Repression 313
 - B. Alternative Factors: Saliency and Interference 317
 - C. Implication for Theory 324
- II. Representational Properties of Dreaming 327
 - A. Validity of Dream Reports 327
 - B. Two Strategies for Investigating Dreaming 328
- III. Functional Properties of Dreaming 345
 - A. Functions of REM versus NREM Sleep 346
 - B. REM Psychology versus REM Physiology 349
 - C. Dream Content and Psychological Change 351
- References 355

9 Biofeedback and the Twilight States of Consciousness 361

THOMAS H. BUDZYNSKI

- I. The Twilight State 362
 - A. Is a Twilight State the Source of Creative Ideas? 363
 - B. Biofeedback and Creativity 364
 - C. Learning in the Twilight State? 367
 - D. The Production of Low Arousal through Biofeedback 373
 - E. A Twilight-State Biofeedback System 374
- II. Future Considerations 379
 - A. Is Twilight Learning Minor-Hemisphere Learning? 380
 - B. A Language for the Minor Hemisphere 381
 - C. Retrieval Difficulties 381
 - D. Cognitive Balance 382
- References 382

Author Index 387

Subject Index 395