

# Contents

Appendix of Sources	xi
Editor's Introduction	xvii

## VOLUME I

### Part 1: Connectionism and Learning Theory

1. Pavlovian Conditioning and Its Proper Control Procedures <i>Robert A. Rescorla</i>	3
2. A Theory of Pavlovian Conditioning: Variations in the Effectiveness of Reinforcement and Nonreinforcement <i>Robert A. Rescorla and Allan R. Wagner</i>	14
3. A Theory of Attention: Variations in the Associability of Stimuli with Reinforcement <i>N.J. Mackintosh</i>	46
4. A Model for Pavlovian Learning: Variations in the Effectiveness of Conditioned but Not of Unconditioned Stimuli <i>John M. Pearce and Geoffrey Hall</i>	75
5. A Model for Stimulus Generalization in Pavlovian Conditioning <i>John M. Pearce</i>	103
6. Distributed Memory and the Representation of General and Specific Information <i>James L. McClelland and David E. Rumelhart</i>	130
7. Why There Are Complementary Learning Systems in the Hippocampus and Neocortex: Insights from the Successes and Failures of Connectionist Models of Learning and Memory <i>James L. McClelland, Bruce L. McNaughton and Randall C. O'Reilly</i>	170
8. A Neural Substrate of Prediction and Reward <i>Wolfram Schultz, Peter Dayan and P. Read Montague</i>	248
9. Context, Time, and Memory Retrieval in the Interference Paradigms of Pavlovian Learning <i>Mark E. Bouton</i>	264
10. Relation of Cue to Consequence in Avoidance Learning <i>John Garcia and Robert A. Koelling</i>	306
11. Specific Hungers and Poison Avoidance as Adaptive Specializations of Learning <i>Paul Rozin and James W. Kalat</i>	311

12. Two-Process Learning Theory: Relationships between Pavlovian Conditioning and Instrumental Learning  
*Robert A. Rescorla and Richard L. Solomon* 346
13. Auto-Shaping of the Pigeon's Key-Peck  
*Paul L. Brown and Herbert M. Jenkins* 382

## VOLUME II

### Part 1: Connectionism and Learning Theory (*Continued*)

14. On the Law of Effect  
*R. J. Herrnstein* 3
15. Selection by Consequences  
*B. F. Skinner* 41

### Part 2: Learning and Cognition

16. There Is No Convincing Evidence for Operant or Classical Conditioning in Adult Humans  
*William F. Brewer* 53
17. Implicit Learning and Tacit Knowledge  
*Arthur S. Reber* 97
18. A Case of Syntactical Learning and Judgment: How Conscious and How Abstract?  
*Don E. Dulany, Richard A. Carlson and Gerald I. Dewey* 131
19. Preserved Learning and Retention of Pattern-Analyzing Skill in Amnesia: Dissociation of Knowing How and Knowing That  
*Neal J. Cohen and Larry R. Squire* 154
20. Deciding Advantageously before Knowing the Advantageous Strategy  
*Antoine Bechara, Hanna Damasio, Daniel Tranel and Antonio R. Damasio* 161
21. Acquisition of Cognitive Skill  
*John R. Anderson* 166
22. Context Theory of Classification Learning  
*Douglas L. Medin and Marguerite M. Schaffer* 224
23. Rule-Plus-Exception Model of Classification Learning  
*Robert M. Nosofsky, Thomas J. Palmeri and Stephen C. McKinley* 270
24. From Conditioning to Category Learning: An Adaptive Network Model  
*Mark A. Gluck and Gordon H. Bower* 320
25. Cue Competition in Causality Judgments: The Role of Nonpresentation of Compound Stimulus Elements  
*Linda J. Van Hamme and Edward A. Wasserman* 361

26. Automatic and Effortful Process in Memory  
*Lynn Hasher and Rose T. Zacks* 384

## VOLUME III

**Part 2: Learning and Cognition (*Continued*)**

27. Toward an Instance Theory of Automatization  
*Gordon D. Logan* 3

**Part 3: Development, Language Acquisition and Plasticity**

28. The Neural Basis of Cognitive Development: A Constructivist Manifesto  
*Steven R. Quartz and Terrence J. Sejnowski* 75
29. Psychobiology of Plasticity: Effects of Training and Experience on Brain and Behavior  
*Mark R. Rosenzweig and Edward L. Bennett* 125
30. Motor Sequence Learning: A Study with Positron Emission Tomography  
*I.H. Jenkins, D.J. Brooks, P.D. Nixon, R.S.J. Frackowiak and R.E. Passingham* 140
31. Why Faces Are and Are Not Special: An Effect of Expertise  
*Rhea Diamond and Susan Carey* 167
32. The Role of Deliberate Practice in the Acquisition of Expert Performance  
*K. Anders Ericsson, Ralf Th. Krampe and Clemens Tesch-Römer* 187
33. Three Aspects of Cognitive Development  
*Robert S. Siegler* 277
34. On Learning the Past Tenses of English Verbs  
*D.E. Rumelhart and J.L. McClelland* 315
35. Rules of Language  
*Steven Pinker* 361

## VOLUME IV

**Part 3: Development, Language Acquisition and Plasticity (*Continued*)**

36. A Distributed, Developmental Model of Word Recognition and Naming  
*Mark S. Seidenberg and James L. McClelland* 3
37. Finding Structure in Time  
*Jeffrey L. Elman* 98

38. Children's Sensitivity to Constraints on Word Meaning: Taxonomic versus Thematic Relations <i>Ellen M. Markman and Jean E. Hutchinson</i>	128
39. The Phonological Loop as a Language Learning Device <i>Alan Baddeley, Susan Gathercole and Costanza Papagno</i>	153
40. Statistical Learning by 8-Month-Old Infants <i>Jenny R. Saffran, Richard N. Aslin and Elissa L. Newport</i>	186
41. Origins of Knowledge <i>Elizabeth S. Spelke, Karen Breinlinger, Janet Macomber and Kristen Jacobson</i>	193
42. Maturational Constraints on Language Learning <i>Elissa L. Newport</i>	248
43. Categories and Induction in Young Children <i>Susan A. Gelman and Ellen M. Markman</i>	265
44. Can Decline in Adult Intellectual Functioning Be Reversed? <i>K. Warner Schaie and Sherry L. Willis</i>	288
<b>Part 4: Practical Aspects of Learning</b>	
45. Learned Helplessness: Theory and Evidence <i>Steven F. Maier and Martin E.P. Seligman</i>	309

## VOLUME V

### Part 4: Practical Aspects of Learning (*Continued*)

46. Fears, Phobias, and Preparedness: Toward an Evolved Module of Fear and Fear Learning <i>Arne Öhman and Susan Mineka</i>	3
47. A Modern Learning Theory Perspective on the Etiology of Panic Disorder <i>Mark E. Bouton, Susan Mineka and David H. Barlow</i>	87
48. Learned Industriousness <i>Robert Eisenberger</i>	148
49. Commitment, Choice and Self-Control <i>Howard Rachlin and Leonard Green</i>	186
50. Evidence from Rats that Morphine Tolerance Is a Learned Response <i>Shepard Siegel</i>	198
51. The Neural Basis of Drug Craving: An Incentive-Sensitization Theory of Addiction <i>Terry E. Robinson and Kent C. Berridge</i>	212

52. Confirmation, Disconfirmation, and Information in Hypothesis Testing <i>Joshua Klayman and Young-Won Ha</i>	291
53. Discrimination Learning with and without "Errors" <i>H.S. Terrace</i>	327
54. New Conceptualizations of Practice: Common Principles in Three Paradigms Suggest New Concepts for Training <i>Richard A. Schmidt and Robert A. Bjork</i>	363
55. Predicting How People Play Games: Reinforcement Learning in Experimental Games with Unique, Mixed Strategy Equilibria <i>Ido Erev and Alvin E. Roth</i>	382