Table of Contents

PAGE

OFFICERS OF THE SOCIETY, 1963–64 ii

THE SOCIETY'S COMMITTEE ON THEORIES OF LEARNING AND INSTRUCTION v

ASSOCIATED CONTRIBUTORS v

EDITOR'S PREFACE vii

CHAPTER

I. THE INFLUENCE OF LEARNING THEORIES ON EDUCATION (1900–1950), *Frederick J. McDonald* 1

Introduction. The Early Period: Thorndike and Connectionism. The Influence of John Dewey's Psychological Theory. The Era of Conflicting Psychologies of Learning. The Residue.

II. CONTEMPORARY DEVELOPMENTS WITHIN STIMULUS-RESPONSE LEARNING THEORY, *Winfred F. Hill* 27

Introduction. The Hullian Tradition. Skinner and His Followers. Guthrie and His Influence. Other Developments. Applications of S-R Learning Theory.

III. THE PLACE OF GESTALT PSYCHOLOGY AND FIELD THEORIES IN CONTEMPORARY LEARNING THEORY, *Ernest R. Hilgard* 54

The Rise and Fall of Gestalt Psychology. Köhler and Insight. Wertheimer and Productive Thinking. Lewin and Motivated Learning. Tolman's Cognitive Structure and Latent Learning. The Conservation of Knowledge through Transformation.

IV. NEUROLOGICAL NOTES ON THE ART OF EDUCATING, *Karl H. Pribram* 78

On Readiness. The Capacity To Learn and To Remember. Transfer and the Problem of Structure.

V. THE RELEVANCE OF MATHEMATICAL MODELS FOR EDUCATION, *Frank Restle* 111

Theory. Applications. Discussion.

VI. LABORATORY STUDIES OF VERBAL LEARNING, *Benton J. Underwood* 133

Introduction. Association Formation. Variables. Forgetting.

VII. IMPLICATIONS OF TRAINING RESEARCH FOR EDUCATION, *Robert Glaser* 153

Instructional Objectives. Relationships between Objectives, Aptitudes, and Training. The Design of Training. Training Research. Approaches and Attitudes of Psychologists Working in Military Training and Training Research. The Logistics of Integrating Research, Development, and Practice.

VIII. THE TEACHER'S ROLE IN THE MOTIVATION OF THE LEARNER, *Pauline S. Sears* and *Ernest R. Hilgard* 182

Motivation in Learning Theory. Motives Which Teachers Can Utilize or Arouse. The School Environment and Instructional Procedures as They Bear upon Motivation. Child Personality, Teacher Personality, and Their Consequences for the Motivation of the Learner. Summary and Conclusions.

IX. ISSUES RELATED TO READINESS TO LEARN, *Fred. T. Tyler* . . . 210

Introduction. Factors in Readiness. Concluding Statement.

X. CREATIVE THINKING, PROBLEM-SOLVING, AND INSTRUCTION, *J. W. Getzels* 240

On the Nature of Problems in Learning: Types of Cognitive Problems. Conceptions of Thinking and Problem-solving. Experimental Studies of Teaching for Creative Thinking and Problem-solving. Some Instructional Issues.

XI. THEORIES OF TEACHING, *N. L. Gage* 268

The Need for Theories of Teaching. The Need for Analysis and Specification. Connections between Theory and Research on Teaching. Summary.

XII. REFORM MOVEMENTS FROM THE POINT OF VIEW OF PSYCHOLOGICAL THEORY, *Paul Woodring* 286

Introduction. Technological Innovations. New Staffing Patterns. Program Reorganization. Curricular Reforms Stressing New Content. New Programs for Teacher Education. Conclusion.

XIII. SOME THEOREMS ON INSTRUCTION ILLUSTRATED WITH REFERENCE TO MATHEMATICS, *Jerome S. Bruner* 306

Nature of a Theory of Instruction. Predispositions. Structure and the Form of Knowledge. Sequence and Its Uses. The Form and Pacing of Reinforcement. Selected Illustrations from Mathematics. Some Conclusions.

XIV. THE ANALYSIS OF READING INSTRUCTION: PERSPECTIVES FROM PSYCHOLOGY AND LINGUISTICS, *John B. Carroll* 336

Introduction. The Specification and Psychological Analysis of Reading Behavior. Problems of Psychological Theory in Behavioral Description. Theory-based Instructional Procedures.

XV. AUTOINSTRUCTION: PERSPECTIVES, PROBLEMS, POTENTIALS, *Sidney L. Pressey* 354

Early Work–to About Ten Years Ago. Recent Work–the Last Ten Years. Current Problems. Larger Issues. Exploitings and Potentials.

XVI. EDUCATIONAL TECHNOLOGY, PROGRAMED LEARNING, AND INSTRUCTIONAL SCIENCE, *A. A. Lumsdaine* 371

Education and Technology. Technological Contributions to Instruction. "Programmed Learning" and "Programed Instruction." Some Research Evidence Bearing on a Science of Instruction. Concluding Comments: A Science and Technology of Programed Learning.

XVII. A PERSPECTIVE ON THE RELATIONSHIP BETWEEN LEARNING THEORY AND EDUCATIONAL PRACTICES, *Ernest R. Hilgard* 402

Some Faulty Conjectures. Steps on the Road from Pure-Science Research to Established Educational Practices. A Set of Strategies for Integrating the Psychology of Learning with the Technology of Instruction.

POSTSCRIPT: TWENTY YEARS OF LEARNING THEORY IN RELATION TO EDUCATION, *Ernest R. Hilgard* 416

INDEX 419

INFORMATION CONCERNING THE SOCIETY i

LIST OF PUBLICATIONS OF THE SOCIETY iii