SELECTIONS xi

PREFACE xiii

ACKNOWLEDGMENT xv

SOME DEVELOPMENTAL VIEWPOINTS 1



HISTORICAL BACKGROUND 3 THE CONCEPT OF DEVELOPMENT 6 THE ROLE OF THEORY 11 SELECTION 1 15 THE CENTRAL IMPORTANCE OF METHOD AND RESEARCH EVIDENCE 16 SUMMARY 17

METHODS OF DEVELOPMENTAL RESEARCH 19



THREE METHODS OF DEVELOPMENTAL RESEARCH 20 LONGITUDINAL VERSUS CROSS-SECTIONAL APPROACHES TO DEVELOPMENTAL RESEARCH 33 CONVERGING METHODS IN DEVELOPMENTAL RESEARCH 35 SUMMARY 36

EARLY GROWTH AND DEVELOPMENT 38



CONCEPTION AND FORMATION OF THE ZYGOTE 39 DEVELOPMENT OF THE FETUS 48 BIRTH 50 THE NEONATE 50 THE INFANT AS A COMPETENT INDIVIDUAL 56 SELECTION 2 57 PATTERNS OF PHYSICAL GROWTH 61 MOTOR DEVELOPMENT 64 SUMMARY 70

GENETIC DETERMINANTS OF BEHAVIOR 72

MENDELIAN PRINCIPLES OF INHERITANCE 73 OTHER GENETIC MECHANISMS 76 DETERMINING GENETIC INFLUENCE ON HUMAN BEHAVIOR 77 INTELLIGENCE 84 GENETIC DETERMINANTS OF ABNORMAL BEHAVIOR 91 HERITABILITY OF PATTERNS OF SOCIAL BEHAVIOR 94 SUMMARY 99

PERCEPTUAL DEVELOPMENT 101



SOME BASIC SENSORY AND PERCEPTUAL ABILITIES 103 VISUAL PERCEPTION 106 INTERACTION OF THE SENSORY SYSTEMS 118 MODIFYING THE PERCEPTUAL ENVIRONMENT 119 SUMMARY 122

vi

LEARNING PROCESSES 124



LEARNING BY CLASSICAL CONDITIONING 125 INSTRUMENTAL LEARNING 130 OBSERVATIONAL LEARNING 141 SELECTION 3 147 COMPLEX PROCESSES IN LEARNING 150 SUMMARY 162

COGNITIVE DEVELOPMENT 164



PIAGET'S THEORY 165 THE HIGHER MENTAL PROCESSES 182 SELECTION 4 191 SUMMARY 201

INTELLIGENCE 203



THE CONCEPT OF INTELLIGENCE 204 THE MEASUREMENT OF INTELLIGENCE 206 TYPES OF INTELLIGENCE TESTS 208 THE RELATIONSHIP OF EARLY IQ SCORES TO LATER PERFORMANCE 214 THE CONSTANCY OF IQ 216 SELECTION 5 219 SOME CORRELATES OF INTELLIGENCE 232 SUMMARY 240

LANGUAGE 242



THE ROOTS AND SOUNDS OF LANGUAGE 243 LANGUAGE COMPETENCE 247 THE EMERGENCE OF GRAMMAR 250 THE LANGUAGE OF THE YOUNG CHILD 252 LATER SYNTACTIC DEVELOPMENT 255 SEMANTICS AND THE ACQUISITION OF MEANING 263 SUMMARY 270

SOCIAL AND EMOTIONAL DEVELOPMENT: PERSPECTIVES ON EARLY EXPERIENCE 272



A. S.

PSYCHOANALYTIC THEORY 274 THE CROSS-CULTURAL PERSPECTIVE 281 THE ETHOLOGICAL APPROACH 286 THE EXPERIMENTAL APPROACH: EFFECTS OF SOCIAL DEPRIVATION ON NONHUMANS 290 SELECTION 6 294 ATTACHMENT AND SEPARATION IN HUMANS 300

THE EFFECTS OF EARLY EXPERIENCE ON HUMANS 309 SUMMARY 311

THE SHAPING OF INTERPERSONAL REACTIONS 313

PROSOCIAL BEHAVIOR 314 AGGRESSION 325 SEX ROLES AND SOCIALIZATION 334 SUMMARY 339

viii

SELF-CONTROL, ACHIEVEMENT, AND MORAL VALUES 341



SELF-CONTROL 342 DELAY OF GRATIFICATION 348 ACHIEVEMENT STANDARDS AND STRIVINGS 354 THE DEVELOPMENT OF MORAL VALUES 364 SELECTION 7 370 SUMMARY 376

THE INTELLECTUALLY EXCEPTIONAL 378



MENTAL RETARDATION 379 THE INTELLECTUALLY GIFTED 392 SELECTION 8 393 CREATIVITY 404 SUMMARY 413

THE SOCIALLY DISADVANTAGED 415



WHO ARE THE SOCIALLY DISADVANTAGED? 416 EXPECTANCY AND SELF-CONCEPT 418 FAMILY STRUCTURE 420 LANGUAGE OF THE SOCIALLY DISADVANTAGED 423 SOCIAL CLASS, CHILD REARING, AND COGNITIVE DEVELOPMENT 424 COMPENSATORY EDUCATION FOR THE DISADVANTAGED 428 EARLY EDUCATIONAL INTERVENTION 428 SELECTION 9 436 SUMMARY 445

ix

BEHAVIOR PROBLEMS OF CHILDHOOD 447



CHILDHOOD PSYCHOSES 448 NEUROTIC REACTIONS IN CHILDHOOD 454 TREATMENT OF CHILDHOOD DISORDERS 459 CHILDHOOD BEHAVIOR AND LATER PROBLEMS 471 SUMMARY 475

THE ROAD TO MATURITY 477



ADOLESCENCE: THE TRANSITION FROM CHILDHOOD TO ADULTHOOD 478 REACHING FULL MATURITY 499 SELECTION 10 514 SUMMARY 517

REFERENCES 521

AUTHOR INDEX 553

SUBJECT INDEX 561