

# **An Introduction to Developmental Psychology**

SECOND EDITION

**EDITED BY ALAN SLATER AND  
GAVIN BREMNER**



**BPS BLACKWELL**

# Brief Contents

<b>List of Contributors</b>	<b>xxiii</b>
<b>Preface to Second Edition</b>	<b>xxv</b>
<b>Part I INTRODUCTION</b>	<b>1</b>
1 The Scope and Methods of Developmental Psychology <i>Alan Slater, Scott P. Johnson, and Darwin Muir</i>	3
2 Theories and Issues in Child Development <i>Scott P. Johnson, Alan Slater, and Ian Hocking</i>	41
3 The Nature–Nurture Issue (an Illustration Using Behaviour-Genetic Research on Cognitive Development) <i>Elisa A. Esposito, Elena L. Grigorenko, and Robert J. Sternberg</i>	79
<b>PART II INFANCY</b>	<b>115</b>
4 Prenatal Development <i>Christine Moon and William P. Fifer</i>	117
5 Perception, Knowledge, and Action in Infancy <i>J. Gavin Bremner</i>	149
6 Emotional Development and Attachment Relationships <i>Elizabeth Meins</i>	183
7 Social Interaction and the Beginnings of Communication <i>H. Rudolph Schaffer</i>	217
8 The Development of Self and Gender <i>Wendy Lawrenson</i>	243
<b>PART III CHILDHOOD</b>	<b>285</b>
9 Cognitive Development <i>Margaret Anne Defeyter</i>	287
10 The Development of Language <i>Heather M. Hill and Stan A. Kuczaj II</i>	319
11 Acquiring a Theory of Mind <i>Peter Mitchell</i>	357

<b>12</b>	<b>Reading and Mathematics in Developmental Psychology</b>	<b>385</b>
	<i>Peter Bryant</i>	
<b>13</b>	<b>Memory Development and Eyewitness Testimony</b>	<b>417</b>
	<i>Stephen J. Ceci, Stanka A. Fitneva, Cagla Aydin, and Nadia Chernyak</i>	
<b>14</b>	<b>Play and the Beginnings of Peer Relationships</b>	<b>453</b>
	<i>Peter K. Smith</i>	
<b>15</b>	<b>Prosocial Tendencies, Antisocial Behaviour, and Moral Development in Childhood</b>	<b>487</b>
	<i>Daniel Hart, Nyeema Watson, Anandini Dar, and Robert Atkins</i>	
<b>PART IV ADOLESCENCE</b>		<b>515</b>
<b>16</b>	<b>Cognitive Development in Adolescence</b>	<b>517</b>
	<i>Kang Lee, Gizelle Anzures, and Alejo Freire</i>	
<b>17</b>	<b>Social Development</b>	<b>551</b>
	<i>William M. Bukowski, Tanya Bergevin, and Richard Miners</i>	
<b>PART V PRACTICAL ISSUES</b>		<b>585</b>
<b>18</b>	<b>Educational Implications</b>	<b>587</b>
	<i>Alyson Davis and Naomi Winstone</i>	
<b>19</b>	<b>Risk and Resilience in Development</b>	<b>613</b>
	<i>Leslie Morrison Gutman and Eirini Flouri</i>	
<b>20</b>	<b>Social Problems in Schools</b>	<b>649</b>
	<i>Peter K. Smith and Julian Elliott</i>	
<b>21</b>	<b>Atypical Development</b>	<b>681</b>
	<i>Sarah Norgate</i>	
<b>Glossary</b>		<b>717</b>
<b>Names Index</b>		<b>747</b>
<b>Subject Index</b>		<b>757</b>

# Contents

<b>List of Contributors</b>	<b>xxiii</b>
<b>Preface to Second Edition</b>	<b>xxv</b>
<b>Part I INTRODUCTION</b>	<b>1</b>
<b>1 The Scope and Methods of Developmental Psychology</b>	<b>3</b>
<i>Alan Slater, Scott P. Johnson, and Darwin Muir</i>	
Introduction	5
Studying Changes with Age	6
Concepts of Human Development	6
<i>'Folk' theories of development: Punishment or praise?</i>	6
<i>Defining development according to world views</i>	8
Ways of Studying Development	10
<i>Designs for studying age-related changes</i>	10
<i>Research methods</i>	15
Beyond Common Sense: The Importance of Research Evidence	29
<i>Social policy implications of child development research</i>	31
Developmental Functions: Growing and Changing	32
<i>Continuous function (a) – increasing ability</i>	32
<i>Continuous function (b) – decreasing ability</i>	33
<i>Discontinuous (step) function</i>	34
<i>U-shaped functions</i>	35
<i>Comparing developmental functions</i>	36
Summary and Conclusions	37
Discussion points	38
Suggestions for Further Reading	38
References	39
<b>2 Theories and Issues in Child Development</b>	<b>41</b>
<i>Scott P. Johnson, Alan Slater, and Ian Hocking</i>	
Introduction	44
Motor Development	44
<i>Maturational theories</i>	45
<i>Dynamic systems theory</i>	47
Cognitive Development	50
<i>Piaget's theory of development</i>	50
<i>Developmental psychology before Piaget</i>	51

<i>Fundamental aspects of human development, according to Piaget</i>	51
<i>The four stages of cognitive development</i>	52
Information Processing Approaches	54
<i>Cognitive development in infancy</i>	55
<i>Cognitive development in childhood</i>	56
<i>Connectionism and brain development</i>	57
<i>Summary</i>	58
<i>Comparing information-processing approaches with Piaget's approach</i>	58
Social-Cognitive Development	59
<i>Vygotsky</i>	59
<i>Behaviourism and social learning theory</i>	59
Ethology and Evolution	62
<i>Evolution</i>	62
<i>The ethological approach</i>	63
Emotional Development	64
<i>Attachment theory – John Bowlby and Mary Ainsworth</i>	64
Psychoanalytic Theories	66
<i>Sigmund Freud – The founder of psychoanalysis</i>	66
<i>The five psychosexual stages</i>	66
<i>Problems with Freudian theory</i>	67
<i>Psychoanalysis, then and now: An overview</i>	68
<i>Modern psychoanalysts – Anna Freud and Erik Erikson</i>	69
Humanistic Theory – Abraham Maslow	69
<i>Abraham Maslow's hierarchy of needs</i>	69
Putting It All Together – Different Theories for Different Needs	70
<i>Gender development</i>	71
Issues in Child Development	73
<i>The nature–nurture issue</i>	73
<i>Stability versus change</i>	73
<i>Continuity versus discontinuity</i>	74
Summary and Conclusions	74
Discussion Points	74
Suggestions for Further Reading	75
References	75
<b>3 The Nature–Nurture Issue (an Illustration Using Behaviour-Genetic Research on Cognitive Development)</b>	<b>79</b>
<i>Elisa A. Esposito, Elena L. Grigorenko, and Robert J. Sternberg</i>	
<i>Why Do People Differ in the Way They Think?</i>	84
<i>The Behaviour-Genetic Approach to Studying Individual Differences</i>	85
<i>The concept of individual differences</i>	85
<i>Genes and environment</i>	86
<i>Learning the terminology</i>	87

The Forces Determining Individual Differences in Cognition	92
<i>Genetic influences (G): Types and effects</i>	92
<i>Environmental influences (E): Types and effects</i>	94
<i>When the two are brought together: Gene–environment effects (G × E)</i>	95
The Relative Impact of Genes on Cognition: Quantitative Genetic Studies	98
<i>Heritability and environmentality</i>	98
Finding the Genes that Impact Cognition: Molecular Genetics Studies	101
<i>Linkage and association studies</i>	101
<i>Candidate genes</i>	102
How Do Genes Influence Cognition? Functional Paradigms	105
<i>Gene expression profiling</i>	105
The Dynamic Genome: Epigenetics	107
Summary and Conclusions	108
Discussion points	109
Suggestions for Further Reading	109
References	110

## PART II INFANCY

115

<b>4 Prenatal Development</b>	<b>117</b>
<i>Christine Moon and William P. Fifer</i>	
Introduction	120
The Brain, the Spinal Cord and the Emergence of Mind	121
<i>Processes and sequencing of brain development</i>	121
<i>Development of the cerebral cortex</i>	122
<i>Behavioural organisation</i>	123
Sensations	126
<i>Touch</i>	126
<i>The chemosensory system</i>	126
<i>The vestibular system</i>	128
<i>The visual system</i>	129
<i>The auditory system</i>	132
Prenatal and Transnatal Auditory Learning	135
<i>Learning about mother's voice and language</i>	136
<i>Summary</i>	137
Risks to Foetal Development	137
<i>Effects of exposure to psychoactive substances</i>	138
<i>Nutrition and foetal development</i>	139
<i>Effects of maternal stress</i>	139
Prenatal Development of Postnatal Functions: the Bridge to Infancy	140
Summary and Conclusions	141
Discussion points	142
Suggestions for Further Reading	142
References	142

<b>5</b>	<b>Perception, Knowledge, and Action in Infancy</b>	<b>149</b>
	<i>J. Gavin Bremner</i>	
	Introduction	151
	Visual Perception from Birth to Six Months	152
	<i>Early limitations of vision: Are they really a problem?</i>	152
	<i>How can we investigate infant perception?</i>	153
	<i>Shape perception in newborns</i>	154
	<i>Newborns perceive a three-dimensional world</i>	156
	<i>Perceptual development in the first six months</i>	156
	Summary	159
	Infants' Perception of People	159
	<i>Face perception</i>	160
	<i>Discriminating between faces</i>	161
	<i>Preference for attractive faces</i>	161
	<i>Perceptual narrowing and the other species/race effect</i>	162
	<i>Imitation</i>	162
	<i>Voice perception</i>	164
	<i>Voice and speech discrimination</i>	164
	Summary	165
	Infants' Knowledge of the World	166
	<i>Jean Piaget and the development of object permanence</i>	166
	Later Work on Infant Cognition	167
	<i>The violation of expectation technique</i>	167
	<i>Evidence of object knowledge: The 'drawbridge study' and others</i>	168
	<i>Young infants reason about the number of objects in an event</i>	170
	<i>Young infants discriminate different numbers of items</i>	171
	Summary	173
	Object Search Revisited	174
	<i>Search failure is not due to lack of motor skill</i>	174
	<i>Seeking an explanation of the A not B error</i>	174
	Summary and Conclusions	177
	<i>Early knowledge</i>	177
	<i>Early knowledge does not guide action</i>	177
	<i>Remodelling the Piagetian account</i>	178
	Discussion points	178
	Suggestions for Further Reading	179
	References	179
<b>6</b>	<b>Emotional Development and Attachment Relationships</b>	<b>183</b>
	<i>Elizabeth Meins</i>	
	Introduction	185
	Emotional Development	186
	<i>Are expressions of emotion innate?</i>	186
	<i>Infant discrimination of facial expressions</i>	188

<i>Emotional discrimination in context</i>	190
<i>Beyond infancy: Linguistic expression of emotion</i>	191
<i>Hiding your true feelings</i>	195
Attachment Relationships	198
<i>Bowlby's theory of attachment</i>	198
<i>Mary Ainsworth and the strange situation procedure</i>	200
<i>The origins of disorganised attachment</i>	204
<i>Internal working models and the adult attachment interview</i>	205
<i>Links between attachment and emotional development</i>	206
Summary and Conclusions	209
<i>Emotional competence in infancy</i>	209
<i>Later emotional competence</i>	209
<i>Attachment theory</i>	210
<i>Attachment and emotional development</i>	210
Discussion points	210
Suggestions for Further Reading	211
References	211
<b>7 Social Interaction and the Beginnings of Communication</b>	<b>217</b>
<i>H. Rudolph Schaffer</i>	
Introduction	219
<i>Changes in social interactions in early development</i>	219
A Developmental Framework	221
Preference for Humans Is Present at Birth	221
Initial Encounters	223
<i>Macro-level adjustments</i>	223
<i>Micro-level adjustments</i>	223
<i>Two conditions of early social interactions</i>	224
<i>Individual differences</i>	225
Face-to-Face Exchanges	225
<i>Mutual gazing</i>	226
<i>Vocal exchanges</i>	227
<i>Infants learn quickly about interactions!</i>	227
<i>Infants send emotional messages</i>	228
<i>Social signalling</i>	229
Incorporating Objects in Social Interactions	229
<i>The problem of limited attentional capacity</i>	230
<i>The development of shared attention</i>	230
<i>From asymmetry to symmetry in social interactions</i>	231
<i>Toward a theory of mind</i>	232
From Interactions to Relationships	232
<i>The development of object (and person!) permanence</i>	232
Communicating with Symbols	234
<i>From sensorimotor functioning to the use of symbols</i>	235



<i>Talking to babies – is infant-directed speech necessary?</i>	235
<i>The desire to communicate</i>	236
<i>Summary and conclusions: The development of effective communication</i>	237
Summary and Conclusions	238
<i>When development goes wrong</i>	238
<i>The complexity of the task facing the child</i>	238
Discussion points	239
Suggestions for Further Reading	240
References	240
 <b>8</b>	
<b>The Development of Self and Gender</b>	<b>243</b>
Wendy Lawrenson	
Introduction	245
Existential Self	246
<i>The development of self-agency</i>	246
<i>Cognitive responses to the external world</i>	247
<i>Infants are born to be sociable</i>	247
The Development of Self-Awareness	249
<i>The rouge on the nose test</i>	249
<i>Explaining the development of self-awareness</i>	250
I Am Me but Am I Worthy? The Study of Self-Esteem –	
Definition, Measurement and Origin	253
<i>Distinguishing between self-esteem and self-efficacy</i>	254
The Power of Language	258
<i>Attribution theory</i>	259
<i>This is my body: The development of a sense of body image</i>	260
<i>Body parts and whole</i>	260
<i>The tadpole stage in children's drawings</i>	261
<i>Are children drawing themselves?</i>	262
<i>Body size image</i>	262
Perception of Body Attractiveness	265
<i>Early social relationships</i>	266
<i>Modelling and social comparison</i>	266
<i>Re-constructing the body and body image</i>	267
Gender Identity Development	268
<i>Evaluating Freudian theory</i>	269
<i>Boys and girls and shades of gender</i>	269
<i>The boy who was raised as a girl</i>	270
<i>Rewarding gender-appropriate behaviours</i>	272
<i>Cognitive components of gender identity</i>	273
<i>Construction of gender identity</i>	274
The Chosen Categorical Self	275
<i>Developing a national identity</i>	276
Summary and Conclusions	277

Discussion points	279
Suggestions for Further Reading	279
References	279
<b>PART III CHILDHOOD</b>	<b>285</b>
<b>9 Cognitive Development</b>	<b>287</b>
<i>Margaret Anne Defeyter</i>	
Introduction	288
Piaget's Cognitive-Developmental Theory	289
<i>Underlying structures and processes</i>	289
<i>Piaget's stages of cognitive development</i>	290
<i>Overall evaluation of Piaget's theory</i>	308
Case's Neo-Piagetian Theory	309
Siegler's Overlapping Waves Theory	310
Vygotsky's Sociocultural Perspective	311
<i>Overall evaluation of Vygotsky's theory</i>	313
Summary and Conclusions	313
Discussion points	314
Suggestions for Further Reading	315
References	315
<b>10 The Development of Language</b>	<b>319</b>
<i>Heather M. Hill and Stan A. Kuczaj II</i>	
Introduction	321
What Is Human Language?	322
<i>A communication system</i>	322
<i>A symbolic system</i>	322
<i>A rule-governed system</i>	323
<i>Language is productive</i>	323
The Development of the Pragmatic System	324
<i>Turn-taking</i>	324
<i>Initiating interactions</i>	326
<i>Maintaining conversations</i>	327
<i>Repairing faulty conversations</i>	327
The Development of the Phonological System	328
<i>Speech perception</i>	328
<i>Speech production</i>	331
<i>The development of articulation</i>	333
The Development of the Syntactic System	334
<i>The one-word period</i>	335
<i>The two-word period</i>	336
<i>Later syntactic development</i>	337
<i>The significance of overregularisation errors and creative generalisations</i>	338

	<i>How can syntactic development be explained?</i>	340
	The Acquisition of Word Meaning	342
	<i>Guessing a word's meaning</i>	343
	<i>The complexity of the task</i>	344
	<i>Is children's acquisition of word meaning constrained?</i>	344
	<i>The importance of semantic relations</i>	345
	The Interaction of Language and Cognitive Development	346
	Summary and Conclusions	347
	Discussion points	348
	Suggestions for Further Reading	348
	References	348
<b>11</b>	<b>Acquiring a Theory of Mind</b>	<b>357</b>
	<i>Peter Mitchell</i>	
	Introduction	359
	<i>Early attunement to others' minds</i>	359
	<i>Focusing on false beliefs: The unexpected transfer test</i>	360
	When Do Children Begin to Understand that People Hold Beliefs?	362
	Do Children Acquire a Theory of Mind?	362
	<i>The deceptive box test</i>	363
	Is there a Developmental Stage?	364
	<i>The case for gradual change</i>	364
	<i>Do children suddenly begin giving correct judgements of false belief?</i>	365
	<i>Understanding the question asked</i>	366
	<i>The state change test</i>	366
	<i>Hybrid of deceptive box and state change tests</i>	368
	<i>The posting version of the deceptive box test</i>	369
	Signs of Competence During Infancy: Can Infants Understand False Belief?	370
	<i>Adults' difficulty with false beliefs</i>	371
	Factors that Influence Development	374
	<i>Nature versus nurture</i>	374
	<i>Are we equipped with a dedicated module in the brain for understanding other minds?</i>	375
	<i>The role of the family: Siblings</i>	376
	<i>The role of the family: Adults</i>	378
	<i>The characteristics of the child</i>	378
	Autism	379
	<i>Lack of imagination</i>	379
	<i>Socialisation and communication deficits</i>	379
	<i>Causes of autism</i>	380
	<i>Failure to understand the mind</i>	380
	Summary and Conclusions	382
	Discussion points	382

Suggestions for Further Reading	382
References	383
<b>12 Reading and Mathematics in Developmental Psychology</b>	<b>385</b>
<i>Peter Bryant</i>	
Introduction	388
Reading and Writing	389
<i>The difficulty of alphabetic scripts</i>	390
<i>Phonemic awareness and learning to read</i>	391
<i>Rhymes and rimes</i>	391
<i>Summary</i>	393
Conditional Spelling Rules	393
<i>Invented spelling</i>	394
<i>The split digraph (or the silent 'e')</i>	394
<i>Morphemic spelling rules: The case of English</i>	395
<i>Morphemic spelling rules in Greek and French</i>	396
<i>Morphemic spelling rules are difficult</i>	397
<i>Two steps in learning morphemic spelling rules</i>	398
<i>Summary</i>	399
Number and Counting	400
<i>Logic and number</i>	400
<i>Different counting systems</i>	401
<i>Infants' knowledge of number</i>	402
<i>Infants' knowledge of addition and subtraction: Wynn's work</i>	403
<i>Criticisms of Wynn's work</i>	404
<i>Principles before skills</i>	404
<i>Acquiring an understanding of number gradually: Carey's individuation hypothesis</i>	405
<i>Bootstrapping</i>	406
Number as a Cultural Tool	407
<i>The decimal system</i>	407
Logic in the Understanding of Number	408
<i>Logic and cardinality</i>	409
<i>Young children sometimes do not realise that same number = same quantity</i>	409
<i>The importance of one-to-one correspondence</i>	410
<i>Conclusions about the beginnings of the understanding of number</i>	411
Summary and Conclusions	411
Discussion points	412
Suggestions for Further Reading	412
References	413
<b>13 Memory Development and Eyewitness Testimony</b>	<b>417</b>
<i>Stephen J. Ceci, Stanka A. Fitneva, Cagla Aydin, and Nadia Chernyak</i>	
Introduction	419

<i>The Bronx case</i>	419
<i>How reliable are children's reports?</i>	420
The Development of Memory	420
<i>Recognition and recall</i>	421
The Memory Process	421
<i>Encoding</i>	421
<i>Storage</i>	422
<i>Retrieval</i>	422
<i>Semantic and episodic memory</i>	423
Three Factors that Influence the Development of Memory:	
Knowledge, Strategies, and Metamemories	424
<i>Knowledge development</i>	424
<i>Strategy development</i>	428
<i>Metamemory development</i>	430
<i>Cross-cultural influences on memory</i>	433
<i>Other factors influencing memory performance</i>	434
Children's Eyewitness Testimony	435
<i>Suggestibility</i>	436
<i>Ecological validity</i>	436
<i>The relationship between suggestibility and memory development</i>	437
<i>Social factors leading to false reports</i>	439
<i>The interaction of cognitive and social mechanisms</i>	442
<i>Is suggestibility a personality trait?</i>	443
Summary and Conclusions	445
<i>Alternatives to the encoding-storage-retrieval model of memory</i>	446
Discussion points	447
Suggestions for Further Reading	447
References	447
 14	
Play and the Beginnings of Peer Relationships	453
<i>Peter K. Smith</i>	
Introduction	455
Early Peer Relationships	456
The Beginnings of Play	457
<i>Sensorimotor play</i>	457
<i>Pretend play</i>	457
The Growth of Social Participation	459
<i>Are siblings important?</i>	460
<i>Sibling relationships and the development of social understanding</i>	461
<i>Siblings and social and cognitive development</i>	461
<i>Only children</i>	462
Functions of Play	467
<i>Is sociodramatic play important?</i>	468
<i>Play tutoring</i>	468
<i>An intervention study</i>	469

<i>Dominance hierarchies</i>	470
Social Status and Sociometry: The Measurement of Social Relationships in the Peer Group	470
<i>Consequences of sociometric status</i>	472
<i>A social skills processing model</i>	473
<i>Different views on peer maladjustment and aggression</i>	474
<i>Escaping from rejected status</i>	474
Friendship	474
<i>What is special about friends?</i>	475
<i>Consequences of friendships for later well-being</i>	476
Sex Differences in Play and Social Behaviour	477
<i>Explanations of sex differences</i>	478
<i>Gender-typed beliefs</i>	479
Ethnicity	479
<i>Development of racial attitudes</i>	480
Summary and Conclusions	480
Discussion points	481
Suggestions for Further Reading	481
References	482

<b>15</b>	<b>Prosocial Tendencies, Antisocial Behaviour, and Moral Development in Childhood</b>	<b>487</b>
	<i>Daniel Hart, Nyeema Watson, Anandini Dar, and Robert Atkins</i>	
	Introduction	489
	What Do Prosocial and Antisocial Mean?	490
	<i>Continuity and transformation</i>	491
	<i>Are prosocial and antisocial poles on the same dimension?</i>	492
	Preview of the Research Review	493
	The Developmental Trajectory of Prosocial and Antisocial Behaviour and Thought	493
	<i>Toddlers</i>	493
	<i>Middle childhood</i>	498
	<i>Moral judgement development and personality</i>	504
	Social Influences on Prosocial and Antisocial Development	504
	Development within Relationships	505
	<i>Parents</i>	505
	<i>Peers</i>	506
	Culture and Development	508
	<i>Cultural variability</i>	508
	<i>Media and development</i>	509
	<i>Culture and identity</i>	510
	Summary and Conclusions	511
	Discussion points	511
	Suggestions for Further Reading	511
	References	512

<b>PART IV ADOLESCENCE</b>	<b>515</b>
<b>16 Cognitive Development in Adolescence</b>	<b>517</b>
<i>Kang Lee, Gizelle Anzures, and Alejo Freire</i>	
Introduction	519
Perception and Attention	520
<i>Perception</i>	520
<i>Selective attention</i>	521
Memory	522
<i>Short-term memory</i>	523
<i>Long-term memory</i>	525
<i>Memory strategies</i>	526
Intelligence	527
<i>Rapid development</i>	527
<i>Stability of development</i>	529
<i>Fluid and crystallised intelligence</i>	530
<i>Intergenerational IQ gains: We're brighter now!</i>	530
Reasoning	531
<i>Deductive and inductive reasoning</i>	531
<i>Analogical reasoning</i>	533
Formal Operational Thinking	534
<i>Abstract thought</i>	535
<i>Realms of possibility</i>	535
<i>The adolescent as an apprentice scientist</i>	535
<i>Scientific problems</i>	536
Controversies about Piaget's Theory and Research Regarding	
Formal Operational Thought	537
<i>Do all adolescents reach this stage?</i>	537
<i>The role of experience</i>	538
<i>Cross-generational gains</i>	539
Beyond Piaget's Theory	539
<i>Adolescents as rule-based problem-solvers</i>	540
<i>Adolescents as intuitive scientists</i>	541
<i>Three common flaws in children's and adolescents' use of theories</i>	543
<i>General characteristics of adolescent thinking</i>	544
Summary and Conclusions	545
Discussion points	546
Suggestions for Further Reading	546
References	546
<b>17 Social Development</b>	<b>551</b>
<i>William M. Bukowski, Tanya Bergevin, and Richard Miners</i>	
Introduction	553
Key Characteristics of Development	554


G. Stanley Hall: Adolescence as Storm and Stress	555
<i>Adolescence as a second birth</i>	556
<i>Criticism of Hall's account</i>	556
The Adolescent Social Environment: Kurt Lewin	556
<i>Field theory</i>	557
<i>What do adolescents do?</i>	558
Puberty and Psychological Development: The Work of Anna Freud	562
<i>The ego, defence mechanisms, and libidinal forces</i>	563
<i>The role of pubertal development</i>	564
The Family and Adolescence: The Work of Peter Blos	565
<i>Independence versus maintaining parental bonds</i>	566
<i>Acquisition of autonomy</i>	566
<i>The effects of parental style</i>	567
<i>Why does authoritative parenting work so well?</i>	569
Peer Relations: The Ideas of Harry Stack Sullivan	570
<i>Interpersonal needs stimulate psychological growth</i>	570
<i>Subperiods of adolescence</i>	571
<i>Research supporting Sullivan's account</i>	572
<i>The role of the peer group</i>	572
<i>Romantic relationships</i>	573
Erik Erikson and The Development of Identity in Adolescence	576
<i>Adolescence as transition to adulthood</i>	577
<i>Identity formation and self-concept</i>	578
Summary and Conclusions	578
Discussion points	579
Suggestions for Further Reading	579
References	580

## **PART V PRACTICAL ISSUES 585**

<b>18 Educational Implications</b>	<b>587</b>
<i>Alyson Davis and Naomi Winstone</i>	
Introduction	589
Child-Centred Psychology and Education	590
Social Interaction, Learning and Development	591
<i>The effects of peer interaction</i>	592
<i>What is effective teaching?</i>	599
<i>Implications for educational practice and assessment</i>	603
Psychology, Schools and Educational Reform	605
<i>Assessing children's learning</i>	606
Summary and Conclusions	608
Discussion points	608
Suggestions for Further Reading	609
References	609



<b>19</b>	<b>Risk and Resilience in Development</b>	<b>613</b>
	<i>Leslie Morrison Gutman and Eirini Flouri</i>	
	Introduction	615
	Historical Background	616
	Risk Factors	617
	<i>Parental bereavement</i>	618
	<i>Parental separation/divorce and inter-parental conflict</i>	618
	<i>Abuse and maltreatment</i>	619
	<i>Parental psychological disturbances</i>	619
	<i>Socioeconomic risks</i>	620
	<i>Stressful life events</i>	622
	<i>Children's social context</i>	622
	<i>Societal mechanisms</i>	623
	<i>Catastrophic events</i>	623
	Measurement of Risk	624
	<i>Risk accumulation</i>	624
	<i>Risk specificity</i>	626
	<i>Equifinality and multifinality</i>	628
	<i>Levels of risk</i>	628
	Protective/Vulnerability Factors	629
	<i>Personal characteristics</i>	630
	<i>Family characteristics</i>	632
	<i>External support systems</i>	634
	Theoretical Models of Risk and Resilience	635
	<i>Moderator (interactive) effects models</i>	636
	<i>Main effects models</i>	637
	<i>Mediator effects models</i>	637
	<i>Moderator versus main/mediator effects models</i>	638
	Developmental Outcomes: Competence And Maladjustment	638
	Contributions of Risk and Resilience Research to the Design of Successful Interventions	640
	Summary and Conclusions	641
	Discussion points	641
	Suggestions for Further Reading	642
	References	642
<b>20</b>	<b>Social Problems in Schools</b>	<b>649</b>
	<i>Peter K. Smith and Julian Elliott</i>	
	Introduction	651
	The School Context	652
	<i>Social pressures in the classroom</i>	652
	Victimisation and Bullying in School	654
	<i>What do we mean by 'bullying'?</i>	654
	<i>How do we find out about bullying?</i>	655

<i>Incidence figures for bullying</i>	655
<i>Types of bullying</i>	656
<i>Roles in bullying</i>	657
<i>Some structural features of bullying</i>	657
<i>Effects of being bullied</i>	658
<i>Causes of bullying</i>	658
<i>Parental maltreatment and abuse</i>	659
<i>Risk factors for being a victim</i>	659
<b>Interventions to Reduce Bullying</b>	659
<i>A whole-school policy</i>	660
<i>Curriculum work</i>	660
<i>Methods and programmes</i>	660
<i>Social and Emotional Aspects of Learning (SEAL)</i>	661
<i>Assertiveness training</i>	661
<i>Peer support systems</i>	661
<i>Working in the playground</i>	662
<i>Reactive strategies</i>	663
<i>Large-scale school-based interventions</i>	665
<b>School Refusal</b>	666
<i>Types of school refuser</i>	668
<i>Assessment</i>	671
<i>Intervention</i>	671
<i>What can be done by the school?</i>	673
<i>Prognosis</i>	673
<b>Summary and Conclusions</b>	674
<b>Discussion points</b>	674
<b>Suggestions for Further Reading</b>	675
<b>References</b>	675
 <b>21 Atypical Development</b>	 681
<i>Sarah Norgate</i> 	
<b>Introduction</b>	683
<b>What Is Atypical Development?</b>	685
<b>Why Study Atypical Development?</b>	688
<b>Methodological Approaches Used in the Study of Atypical Development</b>	690
<b>Impact of Scientific Discovery and Technological Innovation</b>	
on the Study of Pathways in Atypical Development	691
<i>The impact of the Human Genome Project on the study of atypical development</i>	691
<i>How advances in brain imaging are aiding understanding of pathways in atypical development</i>	693
<i>Use of eye-tracking methodology in studies of atypical development</i>	695
<b>Understanding Atypical Pathways</b>	695
<i>Williams syndrome</i>	696
<i>Autistic spectrum</i>	698
<i>Attention deficit hyperactivity disorder (ADHD)</i>	702

Impact of the Absence of a Sensory Input on Developmental Pathways	703
<i>Children with a dual sensory impairment</i>	706
Environmental Risk Factors: The Case of Emotional Disturbance	707
Summary and Conclusions	710
Discussion points	711
Suggestions for Further Reading	712
References	712
<b>Glossary</b>	<b>717</b>
<b>Names Index</b>	<b>747</b>
<b>Subject Index</b>	<b>757</b>