

<i>List of contributors</i>	page vii
<i>Editorial preface</i>	xi
<i>Foreword</i> JEROME S. BRUNER	xiii
<i>Acknowledgments: external reviewers</i>	xiv

Introduction What is development and interdisciplinarity?

The concept of development: historical perspectives	3
CELIA MOORE	
Understanding ontogenetic development: debates about the nature of the epigenetic process	8
GILBERT GOTTLIEB	
What is ontogenetic development?	18
BRIAN HOPKINS	
The challenge of interdisciplinarity: metaphors, reductionism, and the practice of interdisciplinary research	25
BRIAN HOPKINS	

Part I Theories of development

Neuromaturational theories	37
BRIAN HOPKINS	
Constructivist theories	49
MICHAEL F. MASCOLO & KURT W. FISCHER	
Ethological theories	64
JOHAN I. BOLHUIS & JERRY A. HOGAN	
Learning theories	70
JOHN S. WATSON	
Psychoanalytical theories	77
PETER FONAGY	
Theories of the child's mind	84
NORMAN H. FREEMAN	
Dynamical systems approaches	89
GREGOR SCHÖNER	

Part II Methods in child development research

Data collection techniques	101
Magnetic Resonance Imaging	101
MICHAEL J.L. RIVKIN	
Clinical and non-clinical interview methods	106
MORAG L. DONALDSON	
Cross-cultural comparisons	110
YPE H. POORTINGA	
Cross-species comparisons	112
SERGIO M. PELLIS	
Developmental testing	114
JOHN WOROBEY	
Observational methods	117
ROGER BAKEMAN	
Experimental methods	120
ADINA R. LEW	
Parent and teacher rating scales	123
ERIC TAYLOR	
Self and peer assessment of competence and well-being	125
WILLIAM M. BUKOWSKI & RYAN ADAMS	
Research design	127
Epidemiological designs	127
PATRICIA R. COHEN	
Cross-sectional and longitudinal designs	129
CHARLIE LEWIS	
Twin and adoption studies	132
JIM STEVENSON	
Data analysis	136
Indices of efficacy	136
PATRICIA R. COHEN	
Group differences in developmental functions	137
ALEXANDER VON EYE	

Multilevel modeling	142	Attention	282
JAN B. HOEKSMa		JOHN E. RICHARDS	
Structural equation modeling	147	Brain and behavioral development (I): sub-cortical	287
IOHN J. MCARDLE		ALBERT GRAMSBERGEN	
Research and ethics	153	Brain and behavioral development (II): cortical	296
Ethical considerations in studies with children	153	BARBARA FINLAY	
HELEN I. WESTCOTT		Connectionist modeling	305
<i>Part III Prenatal development and the newborn</i>		GERT WESTERMANN & DENIS MARESCHAL	
Conceptions and misconceptions about embryonic development	159	Daycare	309
RONALD W. OPPEKHEIM		EDWARD C. MELHUISH	
Prenatal development of the musculoskeletal system in the human	166	Executive functions	313
SIMON H. PARSON & RICHARD R. RIBCHESTER		CLAIRE HUGHES	
Normal and abnormal prenatal development	173	Face recognition	317
WILLIAM P. FIFER		CHARLES A. NELSON	
The birth process	183	Handedness	321
WENDA R. TREVATHAN		LAUREN JULIUS HARRIS	
The status of the human newborn	188	Imitation	327
WENDA R. TREVATHAN		ANDREW N. MELTZOFF	
<i>Part IV Domains of development: from infancy to childhood</i>		Intelligence	332
Cognitive development in infancy	195	ROBERT J. STERNBERG	
GAVIN BREMNER		Locomotion	336
Cognitive development beyond infancy	204	JANE E. CLARK	
TARA C. CALLAGHAN		Parenting and the family	340
Perceptual development	210	CHARLIE LEWIS	
SCOTT P. JOHNSON, ERIN E. HANNON, & DIMA AMSO		Play	344
Motor development	217	PETER K. SMITH	
BEATRIX VEREIJKEN		Prehension	348
Social development	227	CLAES VON HOFSTEN	
HILDY S. ROSS & CATHERINE E. SPIELMACHER		Reading and writing	352
Emotional development	234	PETER BRYANT	
NATHAN A. FOX & CYNTHIA A. STIFTER		Schooling and literacy	357
Moral development	242	YVETTE SOLOMON	
ELLIOT TURIEL		Selfhood	362
Speech development	249	MICHAEL LEWIS	
RAYMOND D. KENT		Sex differences	366
Language development	257	JOYCE F. BENENSON	
BRIAN MACWHINNEY		Siblings and peers	374
Development of learning and memory	265	JUDY DUNN	
JANE S. HERBERT		Sleep and wakefulness	378
<i>Part V Selected topics</i>		PETER H. WOLFF	
Aggressive and prosocial behavior	277	Socialization	383
RICHARD E. TREMBLAY		MARK BENNETT	
		Temperament	387
		MARY K. ROTHBART & JULIE HWANG	
		<i>Part VI Developmental pathology</i>	
		'At-risk' concept	393
		HELLGARD RAUH	
		Autism	398
		SIMON BARON-COHEN	

Behavioral and learning disorders	402	Education	487
CHRISTOPHER GILLBERG		LESLIE SMITH	
Blindness	409	Ethology	491
ANN BIGELOW		JOHN C. FENTRESS	
Cerebral palsies	414	Linguistics	497
FIONA STANLEY		MELISSA BOWERMAN	
Child depression	420	Pediatrics	502
IAN M. GOODYER & CARLA SHARP		MARTIN C. O. BAX	
Developmental coordination disorder	424	Sociology	507
MARY M. SMYTH & MARGARET COUSINS		ELIZABETH G. MENAGHAN	
Down's syndrome	429		
DIGBY ELLIOTT			
Dyslexia	433	<i>Appendices</i>	
MARGARET J. SNOWLING		Appendix 1 Biographical sketches of key figures	515
Hearing disorders	437	James Mark Baldwin	ROBERT H. WOZNIAK 515
ROGER D. FREEMAN, MARYKE GROENVELD, «c		Alfred Binet	PETER BRYANT 516
FREDERICK K. KOZAK		John Bowlby	PETER FONAGY 517
Prematurity and low birthweight	442	Jerome S. Bruner	DAVID OLSON 518
MUNA HADDERS-ALGRA		George E. Coghill	RONALD W. OPPENHEIM 519
Prolonged infant crying and colic	448	Erik Erikson	PETER FONAGY 520
IAN ST. JAMES-ROBERTS		Viktor Hamburger	RONALD W. OPPENHEIM 521
Sudden Infant Death Syndrome	453	Jean Piaget	PIERRE MOUNOUD 522
JAMES J. MCKENNA		Wilhelm T. Preyer	KURT KREPPNER 523
Williams syndrome	458	Lev S. Vygotsky	EUGENE SUBBOTSKY 524
MICHELLE DE HAAN		Heinz Werner	WILLIS F. OVERTON & ULRICH MÜLLER 525
		Donald Winnicott	PETER FONAGY 526
<i>Part VII Crossing the borders</i>		Appendix 2 Milestones of motor development and indicators of biological maturity	528
Anthropology	465	ROBERT M. MALINA	
MICHAEL COLE & JENNIFER COLE		Appendix 3 The statistics of quantitative genetic theory	535
Behavioral embryology	469	THALIA C. ELEY	
SCOTT R. ROBINSON		Appendix 4 Glossary of terms	540
Behavior genetics	474		
THALIA C. ELEY		<i>Bibliography</i>	610
Cognitive neuroscience	478	<i>Author index</i>	628
MARK H. JOHNSON		<i>Subject index</i>	639
Developmental genetics	482		
WILLIAM A. HARRIS			