CONTENTS

List	t of illustrations	xiii
Noi	tes on contributors	xvi
1	Introduction to a dynamic systems approach to psychosocial development in adolescence Naomi M.P. de Ruiter, Mandy A.E. van der Gaag, Bertus F. Jeronimus, and E. Saskia Kunnen	1
	Ergodicity and the relevance of a dynamic systems approach for adolescent development 2 How can we define dynamic systems based research? 4 Assumptions 4 Consequences of dynamic systems principles for research 9 This book 11	
2	Systems in transition: the adolescent phase transition Tom Hollenstein and Tiffany Tsui	17
	Self-organization and variability at different timescales 17 The adolescent phase transition 21 The adolescent phase transition (APT) design 23 Analytical possibilities of an APT design 25 APT in less-than-optimal designs 28 Conclusion 28	
	Conclusion 28	

3	Matching methods to theory: using dynamic systems models to understand nested systems of adolescent development	32
	Nancy Darling and Ian Burns	
	Dynamic systems theory and the study of adolescent development 33 Traditional developmental approach 34 Dynamic systems modeling approach 34 Data and theory in developmental and dynamic systems models 35 Time 36	
	Sampling couples in the study of adolescent attachment 37 Modeling adolescent–teacher dyads in the context of peers 43 Nested data 45 Why model? 48	
4	A nonlinear dynamic systems approach to psychological interventions Günter Schiepek, Helmut Schöller, Roswitha Carl, Wolfgang Aichhorn, and Anna Lichtwarck-Aschoff	51
	The common view on interventions: a linear input—output model 51 Chaos and self-organization in human change dynamics 52 Critical instabilities and order transitions 53 Psychotherapy as dynamic support of clients' self-organizing processes 56 The dynamic sensitivity of change processes 60 Assessing and intervening with the SNS 63 Conclusion 65	
5	Conflict dynamics and the transformation of the parent-adolescent relationship Jessica P. Lougheed	69
	The parent–adolescent dyad as a temporal interpersonal emotion system 70 Conflicts in parent–adolescent TIES 72 Attractors 72 Flexibility and rigidity 74 Phase transitions 75 Novel insights from the DS perspective 77 Future directions for research and practical applications 78	
	Conclusion 79	

6	The nature of adolescents' real-time self-esteem from a dynamic systems perspective: the socially embedded self-esteem model Naomi M.P. de Ruiter	83
	Introduction 83 Adolescent real-time self-esteem as situated in parent-child interactions 84 Components of adolescents' self-esteem 86 Components of parental behavior 86 The self-organization of socially embedded self-esteem attractors across real time 87 An empirical illustration: the emergence of embedded self-esteem tendencies 88 Participants 89 General procedure 89 Coding procedure 89 Measures 89 Components of adolescent self-esteem 89 Components of parental behavior 90 Analysis plan 90 Case study results 91 Self-esteem and parental behaviors as time series 91 Quantitative output from the SOM 92 Qualitative output from the SOM 93 Conclusion 94	
7	Dynamic system perspectives on anxiety and depression Bertus F. Jeronimus	100
	Nested systems 101 Affect and emotions: the micro level 101 Dynamic processes 106 Mood episodes (meso level) 107 Personality (macro level) 112 Dynamic perspectives 114 Conclusion 115	
8	Trajectories preceding student dropout: an intra-individual process approach Mandy A.E. van der Gaag, E. Saskia Kunnen, and Paul L.C. van Geert	127
	Introduction 127 Tinto's process perspective on dropout 128	

	Parallel processes of identity development 128	
	Combining Tinto with identity: hypotheses on micro-level	
	processes of dropout 130	
	Present study 130	
	Method 131	
	Participants 131	
	Procedure 131	
	Measures 132	
	Analysis 132	
	Results 134	
	Cluster analysis of individual trajectories 134	
	Comparing trajectories of dropouts and persisters 136	
	Decision tree 137	
	Discussion 139	
	Trajectories of commitment and exploration 139	
	The relation between trajectory typologies	
	and dropout 140	
	The interesting role of variability in	
	dropout processes 141	
	Implications for practice 142	
	Limitations 142	
	Conclusion 143	
9	Identity development from a dynamic	
	systems perspective 14	.6
	E. Saskia Kunnen	U
	L. Ousku Kunnen	
	A conceptual model of identity development: exploration	
	and commitment 146	
	Mechanisms at different time levels: conflicts as the driving force of	
	identity development 149	
	Individual trajectories of identity development 150	
	Ergodicity 154	
	Conclusion 156	
10	Youth's sexual relationships and development:	
	improving our understanding through a dynamic	
	systems approach 16	0
	Daphne van de Bongardt	•
	Research on youth sexuality: sketching dynamics	
	in approach 160	
	From risky to normative 160	
	From individuals to contexts 161	

Longitudinal research on youth sexuality 162 Summary of trends: macro, meso, and micro time development 162 Dynamic systems approach in research on youth sexuality 164 Future directions 166 Multiple and interacting contexts 167 Bidirectional development—context linkages 168 Methodological considerations 169 Concluding remarks: practical applicability 171	
Dynamic developmental complexity of moral motivation for adolescents and young adults Ulas Kaplan	177
Moral motivation dynamically reconceptualized 177 Intrapersonal multiplicity in moral motivation 179 A holistic approach to moral cognition and emotion 180 From stages of reasoning to structures of motivation 181 Moral development reconceptualized 183 Moral self-regulation and multiple motivations 183 Assessment of moral motivation 184 Empirical evidence for multiple motivational structures 185 Developmental relationships between multiple motivations 186 Multiple motivations are related to specific moral judgments 187 An iterative model for short-term moral motivation 188 Implications and conclusion 189	
Social development and group processes: a social network application to bullying and network interventions Gijs Huitsing, Jan K. Dijkstra, and René Veenstra	193
A social network approach to social development 194 Social success and social network position 194 The interplay between peer relationships and behavior 195 Investigating the dynamics of networks 196 Data requirements for longitudinal social network analysis 196 RSiena for longitudinal social network analysis 197 Bullying, victimization, and social networks 199 Dynamics in bullying networks 199 Descriptive insights of bullying networks 202 Toward network interventions 203 Conclusion 204	

13	Visualizing individual dynamics: the case of a talented adolescent Joske K. van der Sluis, Steffie van der Steen, Gert Stulp, and Ruud J.R. den Hartigh	209
	Inter-individual differences in sports performance 210 Intra-individual dynamics 211 The current study 212 Method 213 Participants 213 Measures 213 Procedure 214 Visualization 214 Results 215 Variability of performance and psychosocial factors 215 Dynamics of performance and psychosocial factors 215 Discussion 217 Conclusion 218	
14	Conclusion and discussion: what we can gain from a dynamic systems approach to psychosocial development in adolescence Mandy A.E. van der Gaag, Naomi M.P. de Ruiter, Bertus F. Jeronimus, and E. Saskia Kunnen	223
	General adolescent development from a dynamic systems perspective 223 Domain-specific adolescent development from a dynamic systems perspective 225 Using a dynamic systems approach for generating case-specific	
	understanding and recommendations 228 Commonalities 229 Diversity 230	
	How a dynamic systems approach has brought new insights to the study of adolescence 231	
	Limitations and future directions 232 Knowledge accumulation and generalization in the context of small samples and diversity 232	
	The gaps in adolescent dynamic systems research: missing domains and the issue of timescales 235 Concluding remarks 237	

Index