Contents

Part I Behavioral Dynamics

Imperfect Symmetry and the Elementary Coordination Law
Hyeonsaeng Park, Michael T. Turvey 3

Landscapes Beyond the HKB Model
Karl M. Newell, Yeou-Teh Liu, Gottfried Mayer-Kress 27

Behavioral Dynamics of Visually Guided Locomotion
William H. Warren, Brett R. Fajen 45

Human Trajectory Formation: Taxonomy of Movement Based on Phase Flow Topology
Raoul Huys, Viktor K. Jirsa, Breanna E. Studenka, Nicole Rheaume, and Howard N. Zelaznik 77

Dynamical Systems and Internal Models
James R. Lackner, Betty Tuller 93

Towards a Unified Theory of Rhythmic and Discrete Movements – Behavioral, Modeling and Imaging Results
Dagmar Sternad 105

Part II Neural Dynamics

Imaging the Neural Control of Voluntary Movement using MEG
Douglas Cheyne 137

Nonlinear and Cooperative Dynamics in the Human Brain: Evidence from Multimodal Neuroimaging
Andreas Meyer-Lindenberg, Danielle S. Bassett 161

Large-Scale Network Dynamics in Neurocognitive Function <i>Anthony R. McIntosh</i>	183
Neural Indices of Behavioral Instability in Coordination Dynamics <i>Olivier Oullier, Kelly J. Jantzen</i>	205
Brain–Computer Interfaces (BCI): Restoration of Movement and Thought from Neuroelectric and Metabolic Brain Activity <i>Surjo R. Soekadar, Klaus Haagen, Niels Birbaumer</i>	229
Sleep, Consciousness and the Brain: A Perturbational Approach <i>Giulio Tononi, Marcello Massimini</i>	253
<hr/>	
Part III Social Dynamics	
<hr/>	
Language Use, Coordination, and the Emergence of Cooperative Action <i>Carol A. Fowler, Michael J. Richardson, Kerry L. Marsh, and Kevin D. Shockley</i>	261
Dynamics of Interpersonal Coordination <i>Richard C. Schmidt, Michael J. Richardson</i>	281
EEG Coordination Dynamics: Neuromarkers of Social Coordination <i>Emmanuelle Tognoli</i>	309
<hr/>	
Part IV Coordination: Neural, Behavioral and Social Dynamics	
<hr/>	
J.A. Scott Kelso’s Contributions to Our Understanding of Coordination <i>Armin Fuchs, Viktor K. Jirsa</i>	327
Index	347