## Contents

Contributors ix  
Foreword xi  

1 Introduction: Applying Complex Dynamic Systems Principles to Empirical Research on L2 Motivation 1  
*Zoltán Dörnyei, Peter D. MacIntyre and Alastair Henry*

**Part 1: Conceptual Summaries** 9  

2 Ten ‘Lessons’ from Complex Dynamic Systems Theory: What Is on Offer 11  
*Diane Larsen-Freeman*

3 Attractor States 20  
*Phil Hiver*

4 Rates of Change: Timescales in Second Language Development 29  
*Kees de Bot*

5 Initial Conditions 38  
*Marjolijn Verspoor*

6 Context and Complex Dynamic Systems Theory 47  
*Ema Ushioda*

7 Human Agency: Does the Beach Ball Have Free Will? 55  
*Ali H. Al-Hoorie*

8 Social Network Analysis and Complex Dynamic Systems 73  
*Sarah Mercer*

9 The Dynamics of Possible Selves 83  
*Alastair Henry*
vi  Motivational Dynamics in Language Learning

10  ‘Directed Motivational Currents’: Regulating Complex Dynamic Systems through Motivational Surges  
    Zoltán Dörnyei, Zana Ibrahim and Christine Muir  
    Part 2: Empirical Studies 107

11  Motivation on a Per-Second Timescale: Examining Approach-Avoidance Motivation During L2 Task Performance  
    Peter D. MacIntyre and Alicia Serroul  

12  Dynamics of the Self: A Multilevel Nested Systems Approach  
    Sarah Mercer  

13  Changes in Motivation, Anxiety, and Self-efficacy During the Course of an Academic Writing Seminar  
    Katalin Piniel and Kata Csizér  

14  Motivation, Emotion and Cognition: Attractor States in the Classroom  
    Frea Waninge  

15  Once Burned, Twice Shy: The Dynamic Development of System Immunity in Teachers  
    Phil Hiver  

16  Learner Archetypes and Signature Dynamics in the Language Classroom: A Retrospective Qualitative Modelling Approach to Studying L2 Motivation  
    Letty Chan, Zoltán Dörnyei and Alastair Henry  

17  ‘I can see a little bit of you on myself’: A Dynamic Systems Approach to the Inner Dialogue between Teacher and Learner Selves  
    Tammy Gregersen and Peter D. MacIntyre  

18  Understanding EFL Learners’ Motivational Dynamics: A Three-Level Model from a Dynamic Systems and Sociocultural Perspective  
    Tomoko Yashima and Kumiko Arano  

19  The Dynamics of L3 Motivation: A Longitudinal Interview/Observation-Based Study  
    Alastair Henry
| 20 | Study Abroad and the Dynamics of Change in Learner L2 Self-Concept | 343 |
|    | *Kay Irie and Stephen Ryan* |
|    | *Ryo Nitta and Kyoko Baba* |
| 22 | The Dynamics of L2 Imagery in Future Motivational Self-Guides | 397 |
|    | *Chenjing (Julia) You and Letty Chan* |
| 23 | Conclusion: Hot Enough to be Cool: The Promise of Dynamic Systems Research | 419 |
|    | *Peter D. MacIntyre, Zoltán Dörnyei and Alastair Henry* |