

# Contents

|          |   |    |
|----------|---|----|
| <b>1</b> | <b>Introduction: Complexity as a Challenge</b> . . . . .            | 1  |
| 1.1      | Complex Strategic Choice and Systemic Planning . . . . .            | 1  |
| 1.1.1    | The Idea of Systemic Planning . . . . .                             | 2  |
| 1.1.2    | The Framework of Systemic Planning . . . . .                        | 2  |
| 1.2      | An Overview of the Contents . . . . .                               | 3  |
| 1.3      | A First Look at Complexity and Foresight Problems . . . . .         | 5  |
| 1.3.1    | Detail Complexity . . . . .   | 5  |
| 1.3.2    | Dynamic Complexity . . . . .  | 7  |
| 1.3.3    | Preference Complexity . . . . .                                     | 9  |
| 1.3.4    | Categories of Problems . . . . .                                    | 12 |
|          | References . . . . .  | 13 |
| <b>2</b> | <b>The Condition of Complexity</b> . . . . .                        | 15 |
| 2.1      | The Systems World of Luhmann . . . . .                              | 15 |
| 2.1.1    | Systems According to Luhmann . . . . .                              | 16 |
| 2.1.2    | Systems and Complexity . . . . .                                    | 17 |
| 2.2      | System and Environment . . . . .                                    | 18 |
| 2.2.1    | The Midas Touch of Contingency . . . . .                            | 19 |
| 2.2.2    | Contingency and Decisions . . . . .                                 | 20 |
| 2.3      | The Socio-Technical System and Its Futures . . . . .                | 21 |
|          | References . . . . .  | 25 |
| <b>3</b> | <b>Linking Complexity and Simplicity</b> . . . . .                  | 27 |
| 3.1      | Ways of ‘Seeing’ . . . . .  | 27 |
| 3.2      | Two Epistemic Lenses Concerning Simplicity and Complexity . . . . . | 28 |
| 3.2.1    | The Complementarity of Simplicity and Complexity . . . . .          | 29 |
| 3.2.2    | Systemic Thinking Further Defined . . . . .                         | 30 |
| 3.3      | Combining Simplicity and Complexity Thinking . . . . .              | 30 |
| 3.3.1    | Towards Interaction of the ‘Whole’ and the ‘Parts’ . . . . .        | 31 |
| 3.3.2    | Reflection-in-Action . . . . .                                      | 31 |
|          | References . . . . .  | 33 |

|          |  |    |
|----------|--|----|
| <b>4</b> | <b>The Systemic Process</b> . . . . .  | 35 |
| 4.1      | From Novice to Expert. . . . .   | 35 |
| 4.2      | Towards Intelligence Beyond Calculative Rationality. . . . .                                       | 37 |
| 4.3      | Arationality and Subworld . . . . .  | 38 |
| 4.4      | Unfolding the Systemic Process . . . . .   | 39 |
|          | References . . . . .   | 41 |
| <b>5</b> | <b>The Systemic Toolbox</b> . . . . .  | 43 |
| 5.1      | Systems Science as Three Waves . . . . .   | 43 |
| 5.2      | Formulating Five Modes of Enquiry . . . . .  | 48 |
| 5.2.1    | The Two Promises of Applying Systems Science . . . . .   | 49 |
| 5.3      | Selecting Methods and Techniques for the Toolbox. . . . .  | 50 |
|          | References . . . . .   | 53 |
| <b>6</b> | <b>Setting up the Decision Support</b> . . . . .   | 55 |
| 6.1      | Scoping the Strategic Choices . . . . .  | 56 |
| 6.1.1    | The Soft Methods in the Toolbox . . . . .  | 57 |
| 6.1.2    | Critical Systems Heuristics. . . . .   | 58 |
| 6.1.3    | Soft Systems Methodology. . . . .  | 59 |
| 6.2      | Assessing Consequences and Risks . . . . .   | 62 |
| 6.2.1    | The Hard Methods in the Toolbox . . . . .  | 62 |
| 6.2.2    | Cost-Benefit Analysis . . . . .  | 63 |
| 6.2.3    | Multi-Criteria Analysis . . . . .  | 64 |
| 6.2.4    | Uncertainty and Risk. . . . .  | 65 |
| 6.3      | Creating Choice Intelligence . . . . .   | 66 |
| 6.3.1    | SP as Multi-Methodology Approach . . . . .   | 67 |
| 6.3.2    | SP as Teamwork. . . . .  | 68 |
|          | References . . . . .   | 69 |
| <b>7</b> | <b>Company Relocation as Demo-Case</b> . . . . .   | 71 |
| 7.1      | A Complex Decision Task: Relocation<br>of TRANS-IT Consult . . . . .                               | 71 |
| 7.1.1    | Application of Systemic Principles . . . . .   | 72 |
| 7.1.2    | Consultant Report and Preparation for the<br>Decision Conference . . . . .                         | 73 |
| 7.2      | Principles and Steps of the Decision Conference. . . . .   | 76 |
| 7.2.1    | The Principles of Decision Conferences. . . . .  | 76 |
| 7.2.2    | The Relocation Decision Conference: Decision Tree<br>and Pairwise Comparisons . . . . .            | 78 |
| 7.2.3    | The Relocation Decision Conference: Scores, Weights<br>and Trade-Off. . . . .                      | 82 |
| 7.2.4    | The Relocation Decision Conference:<br>An Intermediary Note . . . . .                              | 85 |
| 7.2.5    | The Relocation Decision Conference: MCA Results<br>and CBA Versus MCA Trade-Off Analysis . . . . . | 85 |

- 7.2.6 The Relocation Decision Conference: Scenario and Risk Analysis . . . . . 90
- 7.3 A Summing up of Case Findings. . . . . 92
- References . . . . . 93
  
- 8 A Summing up: The Challenge of Strategic Decision Making . . . . . 95**
  - 8.1 Systemic Planning: Practice and Cases. . . . . 95
    - 8.1.1 From Detached to Involved Understanding. . . . . 95
    - 8.1.2 A Review of SP Cases. . . . . 97
  - 8.2 The Validity and Potential of the SP Framework. . . . . 108
    - 8.2.1 The SP Framework . . . . . 109
  - 8.3 Complex Strategic Choices in a Wider Perspective . . . . . 112
    - 8.3.1 Known and Unknown . . . . . 112
    - 8.3.2 Towards Robustness in Strategic Complex Choices. . . . . 115
    - 8.3.3 SP from Here...? . . . . . 116
  - References . . . . . 119
  
- Appendix A: COSIMA . . . . . 123**
  
- Appendix B: SIMDEC. . . . . 149**
  
- Index . . . . . 165**



<http://www.springer.com/978-1-4471-2490-0>

Complex Strategic Choices

Applying Systemic Planning for Strategic Decision  
Making

Leleur, S.

2012, XIV, 170 p. With online files/update., Hardcover

ISBN: 978-1-4471-2490-0