Table of Contents

Foreword 11

Introduction 13

1 Language Learning and Cognition 19

1.1 Cognitive Linguistics 20
1.1.1 World, Language, Thought 20
1.1.2 The Road to Cognitive Linguistics 22
1.1.3 Basic Premises of Cognitive Linguistics 25
1.1.4 Organizational Principles of Natural Languages 27
1.1.5 The Role of Cognitive Linguistics in Language Pedagogy 32
1.1.6 Summary 34
1.1.7 Review Questions 34

1.2 Language and the Multilingual Brain 35
1.2.1 The Brain 35
1.2.2 Bilingualism and Lateralization: The Bilingual Brain 37
1.2.3 Neuroplasticity and Second Language Acquisition 39
1.2.4 Summary 40
1.2.5 Review Questions 40

2 Concepts, Images, and Image Schemas 41

2.1 Image Schemas and Metaphorization 42
2.1.1 Images in Language 42
2.1.2 How Does Metaphorization Work? 44
2.1.3 The Use of Image Schemas in Language 46
2.1.4 Pictorial and Multimodal Metaphors 50
2.1.5 Processing Metaphors 53
2.1.6 Interpreting Unknown Metaphors 57
2.1.7 Metaphors in Language Teaching 58
2.1.8 Summary 67

2.1.9 Review Questions 68

2.2 Space and Time 69
2.2.1 Relations of Time and Space 70
2.2.2 The Dimension of Temporality 74
2.2.3 Summary 82
2.2.4 Review Questions 83

2.3 Cognitive Grammar 84
2.3.1 Grammar and Conceptualization 84
2.3.2 Grammatical Metaphors in Animations 101
2.3.3 Empirical Evidence: An Exemplary Study 103
2.3.4 Summary 105
2.3.5 Review Questions 106

3 Constructions and Chunks 107

3.1 Grammar as a Construction Inventory 108
3.1.1 Construction Grammar Models 109
3.1.2 The Units of Construction Grammar 109
3.1.3 Construction Inventory 111
3.1.4 Summary 114
3.1.5 Review Questions 115

3.2 The Role of Constructions in Foreign Language Learning 116
3.2.1 The Audiolingual Method 117
3.2.2 Focusing on Meaningful Word Sequences 118
3.2.3 Abstract Constructions and Instantiations 119
3.2.4 German Constructions with Placement Verbs 120
3.2.5 Summary 128
3.2.6 Review Questions 128

3.3 Chunking and Dechunking 129
3.3.1 Placement Verbs in Caused-Motion Constructions 129
3.3.2 Dechunking Exercises 133
3.3.3 Summary 134

3.3.4 Review Questions 135

4 The Multilingual Mental Lexicon 136

4.1 Language Processing 137
4.1.1 How is Language Produced? 137
4.1.2 Language Comprehension and Production: Analogous Processes? 145
4.1.3 Language Processing Model 150
4.1.4 Summary 153
4.1.5 Review Questions 154

4.2 The Organization of the Multilingual Mental Lexicon 155
4.2.1 What is the Mental Lexicon and What Does it Contain? 155
4.2.2 How is the Mental Lexicon Organized? 157
4.2.3 Which Linguistic Levels are Represented in the Mental Lexicon? 158
4.2.4 How is the Multilingual Mental Lexicon Organized? 161
4.2.5 How is the Semantic-Conceptual System Organized within the Multilingual Lexicon? 164
4.2.6 How do Links between the Semantic-Conceptual System and Word Forms Develop? 165
4.2.7 Summary 169
4.2.8 Review Questions 170

4.3 Teaching the Multilingual Lexicon 171
4.3.1 Incidental Vocabulary Building and Explicit Vocabulary Teaching 171
4.3.2 Communication Strategies for Word-Finding Difficulties 173
4.3.3 Implications for Vocabulary Building in Foreign Language Classes 176
4.3.4 Summary 180
4.3.5 Review Questions 181

5 Text and Textuality 182

5.1 Text as Mental Construction 183

5.1.1 Text-based and Knowledge-based Reading Processes 183
5.1.2 Practical Consequences 186
5.1.3 Mental Text Representations 188
5.1.4 Textual Surface 189
5.1.5 Learning from Texts 192
5.1.6 Summary 194
5.1.7 Review Questions 194

5.2 Contrastive Textology 195
5.2.1 Text Types and Textuality 196
5.2.2 Common Features of Texts in Comparison: Transcultural Features of Text Types 196
5.2.3 Textual Features in Intercultural and Intertextual Comparison 201
5.2.4 Summary 208
5.2.5 Review Questions 209

5.3 Hypertext 210
5.3.1 The Basics of Hypertexts 210
5.3.2 What is Actually New About Hypertexts? 217
5.3.3 Learning with Hypertexts 218
5.3.4 The Potentials of Hypertexts 218
5.3.5 Problems and Solution Approaches 221
5.3.6 Using Hypertexts in Class 226
5.3.7 Summary 230
5.3.8 Review Questions 231

6 Text and Image Processing 232

6.1 Images, Language, and Memory – Basic Theories of the Working Memory 233
6.1.1 Basic Terms of Text and Image Processing 234
6.1.2 Organization and Integration of Text and Images into the Working Memory 238
6.1.3 The Limits of Text and Image Processing in the Working Memory 240

6.1.4 How Does Instructional Design Influence Cognitive Load? 242
6.1.5 Summary 245
6.1.6 Review Questions 246

6.2 Reading Processes on the Text Surface 247
6.2.1 Fundamentals of Word Decoding During Reading 247
6.2.2 Word Decoding and Reading Acquisition in the Foreign Language 251
6.2.3 Summary 260
6.2.4 Review Questions 260

6.3 Advanced Reading Processes 261
6.3.1 The Formation of the Text Base and the Role of Prior Knowledge during Reading 261
6.3.2 Advanced Reading Processes in the Foreign Language 264
6.3.3 Strategies for Promoting Advanced Reading Processes 265
6.3.4 Summary 271
6.3.5 Review Questions 272

6.4 The Role of Learning Strategies for Information Processing 273
6.4.1 Cognitive Abilities and Learning Abilities as Conditional Components for Successful Learning 274
6.4.2 Cognitive versus Metacognitive Strategies 275
6.4.3 The Necessity of Promoting Learning Strategies 284
6.4.4 Design and Instruction Principles of Adequate Support Measures 289
6.4.5 Summary 292
6.4.6 Review Questions 293

7 Theories of Multimedia Learning 294

7.1 Theoretical Foundations of Design Principles 295

7.2 Implementing Design Principles 300
7.2.1 The Modality Principle 301
7.2.2 The Contiguity Principle 304

7.2.3 The Redundancy Principle 306
7.2.4 Summary 308
7.2.5 Review Questions 309

8 Cognition and Language Teaching 310

8.1 Foundations of a Cognitive Approach to Language Learning and Teaching 311

8.2 Transfer Difference in Cognitive Language Teaching 318
8.2.1 Cognitive Linguistics and Language Teaching 319
8.2.2 Implementing Cognitive Linguistic Approaches into Grammar Teaching 320
8.2.3 A Cognitive Approach to Teaching Grammar 322
8.2.4 Transfer Difference 323
8.2.5 Summary 330
8.2.6 Review Questions 331

8.3 Successfully Implementing Grammar and Speech Acts Together 332
8.3.1 Applying Usage-Basedness to Language Teaching 333
8.3.2 Principles of Acquiring Linguistic Competences 333
8.3.3 What Successful Teaching Could Look Like 335
8.3.4 Language Awareness 336
8.3.5 Operationalizing the Principle of the Full-Task-Cycle 337
8.3.6 Summary 344
8.3.7 Review Questions 345

References 346

List of Illustrations 408