Contents

List of figures viii
List of tables ix
Acknowledgements x

Chapter 1 Introduction 1

PART I THE BASIC SPECIFICATIONS

Chapter 2 Language processing: speed and flexibility 7
1. The complexity of the task 7
2. Speed 13
3. Processing shortcuts 17
   3.1 Prefabricated units 18
   3.2 Shallow processing 22
   3.3 Frequency 25
4. Implications for linguistic theory 26

Chapter 3 Language acquisition: robustness 29
1. Individual differences 30
2. The role of input 33
3. Language development in blind children 36
4. The robustness of language 38

Chapter 4 Language in the brain 40
1. The localisation issue 41
2. Preservation of grammatical knowledge in Broca’s aphasia 43
3. The co-occurrence of lexical and grammatical deficits 47
4. The resilience of language 48

Chapter 5 Language and other cognitive processes 50
1. The modularity hypothesis 50
2. Problems with the double dissociation argument 52
Chapter 6  Biological underpinnings  58
1. A genetically specified language module?  58
2. Human adaptations to language  61
   2.1 Preadaptations  61
   2.2 Cultural learning and mind-reading  62
   2.3 Cortical control over vocalisations and coordinating action sequences  65
3. Language adaptations to humans  67
4. Universal Grammar again  69
   4.1 Problems with the poverty-of-the stimulus argument  69
   4.2 Some new questions  72
5. Conclusion  75

PART II  THE BUILDING BLOCKS OF LANGUAGE

Chapter 7  Words  81
1. The semantics of locative terms  83
   1.1 Conventional construal  85
   1.2 Polysemy  89
   1.3 Cross-linguistic variation  91
2. The acquisition of locative terms  100
   2.1 Warlpiri  101
   2.2 Tzotzil  101
   2.3 Japanese  102
   2.4 Korean  103
   2.5 General discussion  104
3. Innate structure, yes – but of what kind?  105
   3.1 Semantic primitives  106
   3.2 Perceptual primitives  107
4. Lexical learning in a constrained connectionist network  111
5. Conclusion  112

Chapter 8  On rules and regularity  116
1. Words and rules  116
2. The connectionist bombshell  117
3. The linguists strike back  118
4. The dual-mechanism model  119
5. The German plural: a minority default?  125
6. The Polish genitive: an inflectional system without a default  130
   6.1 The system  130
   6.2 Genitive masculine forms in default contexts  131
   6.3 Adult productivity with genitive endings  135
   6.4 Acquisition of the genitive inflection  138
7. The final test case: the Polish dative  144
8. Interim conclusions 147
9. Challenges for connectionism 149

Chapter 9 Syntactic constructions 159
1. Ties between lexical and grammatical knowledge 159
2. Multi-word units in acquisition 161
   2.1 Premature usage 161
   2.2 Developmental U-curves 161
   2.3 Inappropriate and ungrammatical usage 162
   2.4 Pronoun reversals 163
   2.5 Filler syllables 164
   2.6 Lexically based patterns 166
   2.7 'Mosaic' acquisition 173
3. A case study: questions 178
   3.1 Early interrogative utterances 178
   3.2 From formula to schema 180
   3.3 Where do 'non-formulaic' utterances come from? 185
   3.4 Evidence for piecemeal learning 186
   3.5 Questions with long-distance dependencies 196
   3.6 Conclusion 200

Chapter 10 The cognitive enterprise 203
1. Towards a psychologically realistic grammar 203
2. A crash course in Cognitive Grammar 204
   2.1 Linguistic expressions are symbolic units 204
   2.2 Imagery 205
   2.3 Things, processes and atemporal relations 207
   2.4 Constructional schemas 208
   2.5 Language as a structured inventory of conventional linguistic units 210
   2.6 A usage-based model 213
   2.7 Meeting the specifications 214
3. Language production in a CG framework 214
4. A cognitive view of language acquisition 219
5. More on regularity 225
6. Future directions 227

Bibliography 230
Index 259