Contents

List of figures *page* viii
List of tables x
Preface xiii
Acknowledgements xiv

1 Antonymy and antonyms 1
1.1 Introduction 1
1.2 Defining *antonymy* and *oppositeness* 2
1.3 Key perspectives on antonymy and opposition 6
1.3.1 Classical and Structuralist perspectives 6
1.3.2 Relation by Contrast 8
1.3.3 Previous Cognitive approaches 10
1.4 Methods for studying antonymy 13
1.4.1 Psycholinguistic investigations 13
1.4.2 Corpus-based approaches to antonymy 14
1.5 The goals of this book 16

2 Antonyms in context 20
2.1 Introduction 20
2.2 Sentential co-occurrence of antonyms 20
2.2.1 Applying co-occurrence statistics 22
2.3 Discourse functions of antonymy 26
2.3.1 Major discourse functions of antonymy 28
2.3.2 Minor discourse functions of antonymy 32
2.3.3 Residual discourse functions 37
2.3.4 Distribution of discourse functions 40
2.4 Summary 42

3 Antonyms and canonicity 43
3.1 Good and bad antonyms 43
3.2 Lexical–categorical approach vs. conceptual approach 43
3.3 Assessing canonicity through judgement experiments 46
3.4 Assessing canonicity through elicitation experiments 49

3.5 Assessing frequency of co-occurrence using word recognition 55
3.6 Assessing canonicity through web-based retrieval methods 57
3.6.1 Identifying antonyms using web-as-corpus techniques 58
3.6.2 Towards a text-based threshold 62
3.6.3 Searching Ancillary Antonymy frames 65
3.6.4 Procedural limitations 68
3.7 Conclusion 69

4 Antonyms in acquisition 71
4.1 What does it mean to 'acquire antonymy'? 71
4.2 When do children start using antonyms? 71
4.3 Which antonyms do children use? 75
4.4 Do all children acquire and use antonyms in the same way? 77
4.5 How do children use antonyms? 79
4.6 Does familiarity with antonyms aid vocabulary acquisition? 83

5 Antonyms and negation 88
5.1 Antonyms and their negations 88
5.2 Negation 89
5.3 UNBOUNDED and BOUNDED meanings 90
5.4 Interpretation of negated and non-negated antonym constructions 93
5.5 The BOUNDEDNESS hypothesis 96
5.6 Negated constructions in discourse 97
5.7 Summary and implications 100

6 Antonyms as constructions 102
6.1 Introduction 102
6.2 Construction Grammar 103
6.3 Contrastive constructions and discourse functions of antonyms 105
6.4 Antonym pairs as lexical constructions 111
6.4.1 Why antonym pairs are constructions 111
6.4.2 The Antonym Construction and its formalization 116
6.4.3 Ordering of antonyms 121
6.5 Ancillary Antonymy revisited 123
6.6 Summary and conclusions 125

7 The cognitive construal account 127
7.1 Introduction 127

7.2 The LOC framework 129
7.2.1 Lexical Meaning as Ontologies and Construals 129
7.3 Antonymy in the LOC model 133
7.3.1 The configuration of antonymy 134
7.3.2 Categorization by content 136
7.4 Summary and implications 142

8 Conclusions – looking backward, looking forward 145
8.1 Looking backward 145
8.2 Looking forward 149
8.3 Summary: construals, constructions, and canonicity 152

References 154
Index 166

Figures

1.1 The schematicity of adjectival meanings in English (Paradis 2001:54) *page* 11
1.2 Conceptualization of the non-scalar adjectives *alive* and *dead* 12
1.3 Conceptualization of the scalar antonyms *short* and *long* 12
2.1 Parallelism and repetition in example (2) 29
2.2 Parallelism and repetition in example (4) 29
2.3 Distributions of antonym discourse functions across six corpora 40
3.1 Direct and indirect antonym relations in WordNet. *Wet* and *dry* are direct antonyms, and members of their synonym sets appear in crescents around them. The synonyms of the direct antonyms are in indirect antonym relations to one another and to *wet* and *dry*. (Adapted from Gross and Miller 1990:268.) 44
3.2 Mean responses for canonical antonyms, non-canonical antonyms, synonyms, and unrelated word pairs 49
3.3 Mean response times for canonical antonyms, non-canonical antonyms, synonyms, and unrelated word pairs 51
3.4 Distribution of antonyms in the elicitation experiment. The Y-axis gives the test items, with every tenth test item written in full; the X-axis gives the number of suggested antonyms across the participants given on the Z-axis 52
3.5 Relations between *good*, *bad*, *evil*, and *mediocre*, based on the elicitation experiment. The number of responses is marked by each arrow 53
3.6 Dendrogram of the bidirectional data in the elicitation experiment 54
4.1 Interaction of contrast-emphasizing versus contrast-minimizing input with user type (Murphy and Jones 2008) 83
5.1 The square of opposition (Parsons 2006) 89
5.2 Example of a trial screen from the experiment, translated into English 91

5.3 Conceptualization of the antonymous pair *empty* and *full* 93
6.1 The *active–passive* antonym construction 117
6.2 The Antonym Construction 119
6.3 Unification of a contrastive construction and an antonym construction 120
7.1 An ontological structure divided into two antonymic parts 135

Tables

1.1 Distribution of antonyms across word classes in CCALED (Paradis and Willners 2007) *page* 4
1.2 Most frequent English words and their canonical antonyms 5
2.1 Intrasentential co-occurrence of Deese's adjective pairs in the British National Corpus 22
2.2 Top ten co-occurring adjective pairs in Stockholm–Umeå corpus 24
2.3 Seven corresponding canonical antonym pairs in English and Swedish 24
2.4 Sentential co-occurrences of adjectives along the SPEED dimension 25
2.5 Corpora used in studies of the discourse functions of antonymy 27
2.6 Ancillary Antonymy across corpora 30
2.7 Coordinated Antonymy across corpora 32
2.8 Transitional Antonymy across corpora 33
2.9 Negated Antonymy across corpora 34
2.10 Interrogative Antonymy across corpora 35
2.11 Comparative Antonymy across corpora 36
2.12 Distinguished Antonymy across corpora 37
2.13 Residual antonyms across corpora 38
3.1 Test items for the judgement experiment 48
3.2 Mean responses, standard deviations, and categorization of the word pairs in the test set 50
3.3 Experimental conditions of the priming experiment 56
3.4 Ten stimulus words (and their responses) from Paradis *et al.* 2009; seed words for Jones *et al.* 2007 in bold 59
3.5 Web search strings used in Jones *et al.* 2007 (asterisk = search wildcard) 60
3.6 Total number and proportion of antonyms retrieved by *soft* in >0.1% of searches (Jones 2010:57) 62

3.7	Antonyms retrieved in ten or more frames (Jones *et al.* 2007:143)	63
3.8	Antonym pairs meeting all thresholds set	64
3.9	Nouns retrieved in ten or more contexts when *facts* is searched in the *short on X, long on Y frame*	67
4.1	Percentage 'adult-correct' answers vs. semantically appropriate 'incorrect' answers in 4- to 5-year-olds	76
4.2	Mean co-occurrence of members of 66 antonym pairs per 100,000 words (Murphy and Jones 2008)	77
4.3	Adult antonym co-occurrence per 100,000 words (Input) and child use per 100,000 words divided by use in input per 100,000 words (Use/Input Factor)	79
4.4	Proportions of antonym functions by age and speaker: Child (C), Input (I) (Murphy and Jones 2008)	80
4.5	Percentage antonym function types by heavy and light antonym users (adapted from Murphy and Jones 2008)	81
4.6	Percentage antonym function types in input to heavy and light antonym users (adapted from Murphy and Jones 2008)	82
5.1	Examples of antonyms from the test sets of negated and non-negated antonyms (Paradis and Willners 2006, submitted)	92
5.2	Speakers' interpretations of individual adjective meanings in relation to their negated antonyms	94
5.3	Three types of antonym pairs with and without negation	95
7.1	Ontologies and cognitive processes in meaning construction, adapted from Paradis 2005	130