

Contents

Preface	xi
1 Introducing Metaphor	1
2 Computational Approaches to Metaphor: Theoretical Foundations	5
2.1 The <i>What</i> , <i>Why</i> and <i>How</i> of Metaphor	5
2.2 The “Meaning” of Metaphor	9
2.3 Paraphrasing Metaphor	11
2.4 Metaphor and Simile	15
2.5 Metaphor and Analogy	17
2.5.1 Domain Representations in Metaphor and Analogy	19
2.6 Conceptual Metaphor Theory	20
2.7 Conceptual Integration and Blending	24
2.8 An Integrated Perspective	30
3 Artificial Intelligence and Metaphor	33
3.1 Corrective Approaches: Metaphor Diagnosis and Repair	33
3.2 Analogical Approaches: Mapping Meanings between Domains	39
3.3 Schematic Approaches: Families of Metaphor	45
3.4 Common Themes and Future Prospects	52
4 Metaphor Annotation	55
4.1 Metaphor Identification in Corpus Linguistics	55
4.2 The MIP Overall	56
4.3 Specifications of Auxiliary Concepts	58
4.3.1 Sense Inventories	58
4.3.2 Criterion for Sense Distinctiveness	59
4.3.3 Lexical Unit	60
4.4 The MIP in Languages other than English	63
4.5 Annotated Datasets	64
4.5.1 Categorized Collections of Metaphors	64

4.5.2	Annotations of Specific Constructions or Target expressions	66
4.5.3	Full-Text Annotations	67
4.5.4	Summary of Annotated Data Available for Public or License-Based Use	70
4.5.5	Additional Annotated Materials	70
5	Knowledge Acquisition and Metaphor	73
5.1	WordNet and other Lexical Ontologies	74
5.2	Extracting Knowledge from Free Text	79
5.2.1	Simile Patterns	80
5.2.2	Categorization Patterns	82
5.2.3	Arbitrary Relations	85
5.3	Conceptual Metaphors	86
5.4	Summary	87
6	Statistical Approaches to Metaphor	89
6.1	Association Measures and Selectional Preferences	89
6.2	Supervised Classification	94
6.3	Clustering	99
6.4	The Topical Structure of Text	102
6.5	Vector Space Models	104
6.6	Concreteness	105
7	Applications of Metaphor Processing	109
7.1	Metaphor in Culture, Communication, and Education	109
7.1.1	Common Metaphors in Cultures and Discourse Communities	110
7.1.2	Metaphor as a Framing Device in Political Communication	110
7.1.3	Metaphor Comprehension and Use as a Skill	111
7.2	Creativity Applications in NLP	112
7.2.1	Creative Writing Tools	112
7.2.2	Creative Information Retrieval of Figurative Possibilities	114
7.2.3	Narrative Possibilities: From Metaphor to Metamorphosis	115
8	Conclusions	119
	Bibliography	123
	Authors' Biographies	147