

CONTENTS

Part I. Naive Semantics	1
1. Naive Semantics	3
1.1. Using Naive Semantics to Interpret "The Programmer"	7
1.2. Compositional Semantics	10
1.3. The Classical Theory of Word Meaning	12
1.4. Word Meanings as Concepts	18
1.5. Other Decompositional Approaches	18
1.6. Computational Approaches to Word Meaning	23
1.7. Naive Semantics	28
1.8. Basis of Naive Semantics in Cognitive Psychology	29
1.9. Comparison of NS with Computational Models	36
1.10. Limitations of NS	39
1.11. Organization of the Book	43
2. Noun Representation	45
2.1. The Ontological Schema	45
2.2. Mathematical Properties of the Ontology	46
2.3. Ontological Categories	49
2.4. Nominal Terminal Nodes	52
2.5. Construction of the Ontology	55
2.6. Other Ontologies	56
2.7. Generic Knowledge	58
2.8. Word Senses	60
2.9. Feature Types	61
2.10. Conclusion	62
3. Kinds, Kind Terms and Cognitive Categories	65
3.1. The Realist Basis of NS and Kind Terms	65
3.2. Kind Types	69
3.3. Kind Types as Metasorts	75
3.4. Another Approach	76
3.5. Summary	77

4. Verb Representation	79
4.1. Ontological Representation	79
4.2. Placing Verbs in the Main Ontology	80
4.3. Sub-Classification of the TEMPORAL/ RELATIONAL Node.	82
4.4. The Vendler Verb Classification	83
4.5. Psycholinguistic Categories	90
4.6. Cross-Classification	93
4.7. Parallel Ontologies	94
4.8. Non-Categorical Features	95
4.9. Generic Representation	95
4.10. Feature Types Associated with Relational Terms	98
4.11. Conclusion	101
5. The Functioning of the Kind Types System	105
5.1. Complete and Incomplete Knowledge	107
5.2. Queries to the System	109
Inspecting the Textual Database.	109
Inspecting the Ontology.	110
Inspecting the Generic Database.	111
Inspecting Feature Types.	113
5.3. Anaphors	117
5.4. PP Attachment	118
5.5. Word Sense Disambiguation	118
5.6. Discourse Reasoning	119
5.7. Kind Types Reasoning	120
5.8. Summary of Inference Mechanism	121
6. Prepositional Phrase Disambiguation	123
6.1. Semantically Implausible Syntactic Ambiguities	123
6.2. Using Commonsense Knowledge to Disambiguate	125
6.3. Commonsense Knowledge used in the Preference Strat- egy	128
Ontological Class of Object of the Preposition.	128
Ontological Class of The Direct Object.	129
Ontological Class of Verb.	129
Generic Information.	130
Syntax.	131

6.4. Success Rate of the Preference Strategy	132
6.5. Implementation	133
6.6. Other Approaches	135
6.7. Conclusion	138
7. Word Sense Disambiguation	141
7.1. Approaches to Word Sense Disambiguation	141
7.2. Local Combined Ambiguity Reduction	142
7.3. Test of Hypothesis	144
7.4. Noun Disambiguation	144
Fixed and Frequent Phrases.	145
Syntactic Tests.	146
Commonsense Knowledge.	147
7.5. Verb Sense Disambiguation	151
Frequent Phrases in Verb Disambiguation.	153
Syntactic Tests in Verb Disambiguation.	153
Commonsense in Verb Disambiguation.	154
7.6. Interaction of Ambiguous Verb and Noun	155
7.7. Feasibility of the Method	156
7.8. Syntactic and Lexical Ambiguity	157
7.9. Intersentential Reasoning	157
7.10. Disambiguation Rules	158
7.11. Efficiency and Timing	164
7.12. Problems for the Method	166
7.13. Other Approaches	167
7.14. Conclusion	169
8. Discourse Coherence	171
8.1. Background	171
Coherence Relations.	172
Discourse Segments.	174
Genre-Relativity of Discourse Structure.	175
The Commentary Genre.	177
Compendium of Discourse Relations.	178
8.2. Modularity and Discourse	184
Modelling the Recipient.	184
Discourse Events.	185
Coherence as Compositional Semantics?	188

Coherence as Naive Inference.	191
Discourse Cues.	192
Parallelism.	193
Facts Explained by the Parallel, Modular Model.	194
8.3. Syntactic and Semantic Tests for Discourse Relations	199
Main Clause.	200
Not Nominalized.	200
Active voice.	203
Tense and Aspect.	203
Transitivity Test.	203
Weak Predictions of Coherence Relations.	205
8.4. Parallelism in Coherence Exemplified	218
Using Commonsense Knowledge to Segment Discourse.	222
Empirical Study of Discourse Hierarchy.	226
8.5. Other Models	226
8.6. Conclusion	230
REFERENCES	233