

# Contents

<i>Acknowledgements</i>	x
<i>Preface</i>	xi
<b>Chapter 1 Introduction</b>	<b>1</b>
1.1 Kinds of Meaning	2
1.1.1 Denotation and Sense	2
1.1.2 Lexical and Structural Meaning	3
1.1.3 Categorematic and Syncategorematic Expressions	5
1.2 Studies Based on Sense	6
1.2.1 Lexical Sense	7
1.2.2 Semantic Features	10
1.2.3 Basic Category Words	10
1.2.4 Family Resemblances	13
1.2.5 Review of Lexical Sense	15
1.3 Denotational Theories	16
1.3.1 Denotations	16
1.3.2 Possible Worlds, Extension and Intension	17
1.3.3 Truth Conditions	18
1.3.4 A Simple Illustration of a Compositional Formal Theory	21
1.4 Review	23
<i>Further Reading</i>	24
<b>Chapter 2 First Order Logic</b>	<b>25</b>
2.1 Representations for Meanings	25
2.2 The Logical Connectives	25
2.2.1 Conjunction	25
2.2.2 Negation	28
2.2.3 Disjunction	29
2.2.4 The Material Implication Connective	30
2.2.5 Equivalence and the Biconditional Connective	33
2.3 Predicates and Arguments	35
2.3.1 Predicates, Verbs and the Number of Arguments	38
2.3.2 Sentences as Arguments	40
2.4 The Logical Quantifiers	41
2.4.1 The Universal Quantifier	41
2.4.2 The Existential Quantifier	44

2.4.3	Scopal Ambiguity	45
	<i>Exercises</i>	47
	<i>Further Reading</i>	51
<b>Chapter 3</b>	<b>Modality and Possible Worlds</b>	<b>52</b>
3.1	Kinds of Modality	52
3.1.1	Logical Modality	52
3.1.2	Epistemic Modality	53
3.1.3	Deontic Modality	55
3.2	Modality and Possible Worlds	55
3.2.1	Interdefinability with Negation	58
3.3	Counterfactuals	61
	<i>Exercises</i>	65
	<i>Further Reading</i>	66
<b>Chapter 4</b>	<b>Natural Language Quantifiers</b>	<b>67</b>
4.1	Natural Language Quantifiers and First Order Logic	67
4.2	Restricted Quantifiers	70
4.2.1	Scopal Ambiguity	72
4.3	Quantificational Determiners in Generalized Quantifier Theory	73
4.3.1	Set Theoretic Definitions	73
4.3.2	Different Types of Quantifiers	75
4.3.3	<i>Few</i> and <i>Many</i>	77
4.3.4	<i>Few</i> and <i>A few</i>	79
4.3.5	<i>Some</i> and <i>Several</i>	79
4.4	Proportional Determiners and Discourse Familiarity	80
4.5	Quantifiers and <i>There BE</i> Sentences	81
4.5.1	Basic Existential <i>There BE</i>	82
4.5.2	Presentational <i>There BE</i>	83
4.5.3	Task <i>There BE</i>	84
4.5.4	List <i>There BE</i>	85
4.6	Quantifiers and Negative Polarity Items	85
	<i>Exercises</i>	89
	<i>Further Reading</i>	92
<b>Chapter 5</b>	<b>Definite Descriptions</b>	<b>93</b>
5.1	Russell's Theory of Descriptions	93
5.2	<i>The</i> as a Generalized Quantifier	94
5.3	Definite Descriptions as Strong NPs	96
5.3.1	Familiarity Effects	96

5.3.2	<i>There BE</i> Contexts	99
5.4	Scopal Ambiguity	99
5.5	Opacity: Descriptions, Modality and Propositional Attitudes	100
5.5.1	Referential Opacity	101
5.5.2	Modality, Descriptions and Names	105
5.5.3	Propositional Attitudes and Descriptions	108
5.5.4	Summary: Descriptions and Scope	111
5.5.5	Propositional Attitudes and Names	112
	<i>Exercises</i>	116
	<i>Further Reading</i>	119
<b>Chapter 6</b>	<b>Indefinite Descriptions, Plurals, Generics and Mass NPs</b>	<b>120</b>
6.1	Indefinite Descriptions and Specificity	120
6.2	Plural NPs and Groups	123
6.2.1	Collective Predication	124
6.2.2	Cumulative Predication	128
6.3	Mass NPs	128
6.3.1	Mass NPs and their Predicates	129
6.3.2	The Homogeneity of Mass Terms	129
6.3.3	Definitions for Mass Terms	130
6.4	Bare Plural NPs	133
6.4.1	Generic and Existential Readings	133
6.4.2	Bare Plurals and Quantificational Adverbs	136
6.5	Generic NPs and Reference to Kinds	137
	<i>Exercises</i>	143
	<i>Further Reading</i>	147
<b>Chapter 7</b>	<b>Tense and Aspect</b>	<b>148</b>
7.1	The English Verb Group	148
7.2	Interpretations of Present and Past Tense Forms	150
7.2.1	The Present Tense	150
7.2.2	The Past Tense	152
7.2.3	Finiteness	153
7.3	The Formal Representation of Simple Tenses	154
7.4	Aspect	156
7.5	The Progressive	156
7.6	Perfective <i>Have</i>	158
7.7	The Aspectual Perfect	158
7.7.1	The Present Perfect: Reference to Past and Present	158
7.7.2	Universal and Existential Readings	162
7.7.3	Definite and Indefinite Reference to Times	163
7.8	The Tense Perfect	167

7.9	Reichenbach's Analysis	168
7.9.1	The Present Perfect	169
7.9.2	Past and Future Perfect	169
	<i>Exercises</i>	172
	<i>Further Reading</i>	175
<b>Chapter 8</b>	<b>Events</b>	<b>176</b>
8.1	Davidson's Analysis of Action Sentences	176
8.2	Neodavidsonian Developments	181
8.2.1	Separation of Direct Arguments	181
8.2.2	The Adicity of Verbal Predicates	183
8.2.3	Relations to Events	187
8.3	Thematic Roles	188
8.3.1	Traditional Thematic Roles	189
8.3.2	Thematic Roles, Arguments and Adverbials	191
8.3.3	The Generality of Thematic Roles	191
8.4	Events and Perception Verbs	193
8.5	Adding Tense and NP Quantifiers	195
	<i>Exercises</i>	197
	<i>Further Reading</i>	199
<b>Chapter 9</b>	<b>Aspectual Classes of Events</b>	<b>200</b>
9.1	The Four Aspectual Classes	201
9.2	Linguistic Signs of Aspectual Classes	204
9.2.1	Bounding and Duration	204
9.2.2	Tense and Verb Aspect	210
9.2.3	Agentivity	211
9.2.4	Internal Complexity	214
9.2.5	Interactions with the Progressive	216
9.3	Aspectual Similarities between Event Predicates and NPs	218
9.3.1	Countability and Boundedness	218
9.3.2	Mass and Indefinite Plurality	221
9.4	Homogeneity and Heterogeneity	222
9.5	Closing Comment	224
	<i>Exercises</i>	225
	<i>Further Reading</i>	227
<b>Chapter 10</b>	<b>Thematic Roles Reviewed</b>	<b>228</b>
10.1	Thematic Roles, Arguments and Adverbials	228
10.2	Thematic Roles are not Primitives	230
10.2.1	An Alternative Subatomic Analysis	230

10.2.2	Defining Thematic Roles	231
10.2.3	Defining Verb Classes	232
10.2.4	Signs of Aspectual Event Classes	234
10.2.5	Aspect and Types of Thematic Role	235
10.3	Agentivity	237
10.3.1	Volition and Control	237
10.3.2	Inanimate Forces	240
10.3.3	Inherent Causal Properties	241
10.4	The Actor/Patient Division	244
10.5	Aspect and Themes	246
	<i>Exercises</i>	248
	<i>Further Reading</i>	253
<b>Chapter 11</b>	<b>Implicature and Explicature</b>	<b>254</b>
11.1	Grice's Conversational Implicature	255
11.1.1	Clarity	256
11.1.2	Truthfulness	257
11.1.3	Informativeness	258
11.1.4	Relevance	260
11.2	Later Developments	261
11.3	Horn's Q Principle and R Principle	262
11.3.1	Q-Implicatures	263
11.3.2	R-Implicatures	264
11.4	Relevance Theory	267
11.4.1	Cognitive Effect and Processing Effort	267
11.5	Levels of Inference: Implicature and Explicature	271
11.5.1	Disambiguation, Reference Assignment and Indexicality	271
11.5.2	Further Pragmatic Contributions to Explicature	275
11.5.3	Differentiating Explicature and Implicature	279
11.6	Closing Comment	280
	<i>Exercises</i>	282
	<i>Further Reading</i>	285
	<i>Bibliography</i>	286
	<i>Index</i>	295