

Contents

I Reference	1
1 Introduction and Terminology	1
1.1 Introduction	2
1.2 Chapter Overview	6
1.3 Notational Conventions	6
1.4 Background and Methodological Remarks	8
1.4.1 Meaning Theory: The Background	8
1.4.2 Empirical versus Ideal Language Perspective	10
1.5 The Notion of Reference	14
1.5.1 The Multiple Uses of «Reference»	14
1.5.2 Equivocation, Co-Extensionality, and Conflation	16
1.5.3 Singular and Individual Terms, Empty Singular Terms	17
1.5.4 Generalizations	19
2 Indirect Reference	21
2.1 Chapter Overview	22
2.2 Original Proposals: Frege and Russell	22
2.2.1 Russell's Analysis of Proper Names	23
2.2.2 Frege on Sense and Reference	27
2.2.3 Frege on Proper Names	32
2.2.4 A Brief Comparison of Russell and Frege	33
2.3 Other Variants of Indirect Reference and Discussion	36
2.3.1 Searle's Cluster Theory	36
2.3.2 Other Non-Modal Variants of Description Theory	37
2.4 Motivations for Indirect Reference	39
2.4.1 Cognitive Significance of Co-Extensional Proper Names	40
2.4.2 Referential Opacity of Proper Names in Attitude Ascriptions	41
2.4.3 Synthetic Identity Statements Involving Co-Extensional Proper Names	43

2.4.4	Cognitive and Truth-Conditional Content of Proper Names for Non-Existent Entities	43
2.4.5	Psychological and Epistemological Aspects of Speaker Reference	45
2.5	On Identifying Reference	46
2.5.1	Donnellan on Definite Descriptions	47
2.5.2	Transfer to Proper Names	48
2.5.3	Concluding Remarks	50
3	Direct Reference	53
3.1	Chapter Overview	54
3.2	Direct Reference and Rigidity	54
3.2.1	Rigid Designation and Kripke's Modal Argument	55
3.2.2	Rigid Designation as a Formal Notion	57
3.2.3	The New Theory of Reference	59
3.3	Direct Reference as Immediacy of Reference	62
3.3.1	Millianism, Semantic Reference, and Rigidity	62
3.3.2	Millianism and Speaker Reference	64
3.4	Direct versus Indirect Reference	67
3.4.1	Some Known Defenses of Description Theory	67
3.4.2	Pro and Contra Modal Description Theory	73
3.4.3	Further Literature	80
3.4.4	Concluding Remarks	81
4	A Description Theory of Reference	83
4.1	Chapter Overview	84
4.2	Outline of the Proposal	85
4.3	Meaning Theoretical Background	85
4.3.1	Genuine Dual Aspect Theories	86
4.3.2	The Role of Disquotation	87
4.3.3	Dual Aspect Theory Revised	90
4.4	Towards a Theory of Indirect Reference	92
4.4.1	The Problem of Rigidity for Descriptivism	93
4.4.2	Referential Multiplicity	94
4.4.3	Modeling Speaker Reference	96
4.5	Objections and Refinements	97
4.5.1	Defense Against Epistemic and Semantic Arguments	98
4.5.2	Defense Against the Circularity Objection	100
4.5.3	Defense Against the Church-Langford Translation Test	103

4.5.4	The Role of Identification Criteria	104
4.5.5	The Problem of Nested Modalities	105
4.5.6	Summary	106
4.6	Implementing Description Theory	109
4.6.1	Implementing Relativized Rigidity	110
4.6.2	Compositionality	115
II	Indexicality	129
5	Indexicals	131
5.1	Chapter Overview	132
5.2	Introduction	132
5.2.1	Terminology	132
5.2.2	Brief Historical Overview	135
5.2.3	More Terminology and Exclusion of Some Phenomena	137
5.3	Dimensions of Indexicality	142
5.3.1	The Person Dimension	142
5.3.2	The Spatial Dimension	145
5.3.3	The Temporal Dimension	149
5.3.4	The Modal Dimension	154
5.3.5	Other Dimensions	156
5.4	Indexical Reference	157
5.4.1	Token-Reflexivity	157
5.4.2	Utterance-based Reference Rules	159
5.4.3	On the Content of Reference Rules	165
5.4.4	The Varieties of Contexts	168
5.4.5	Indexicals and Rigidity	172
5.4.6	Rigidity and Token-Reflexivity	176
5.4.7	Indexical Speaker Reference	177
5.4.8	Indexical vs. Non-Indexical Reference	178
6	Indexicals in Modal Logic	181
6.1	Chapter Overview	182
6.2	Background and Motivation	182
6.3	A Double-Index Modal Logic: DIML	185
6.3.1	Syntax	185
6.3.2	Semantics	186
6.3.3	Indirect Speech and Belief Operators	191
6.3.4	Technical Remarks	192

6.4	Examples and Discussion	193
6.4.1	Indexicals	193
6.4.2	Demonstratives	195
6.4.3	The Role of Dthat and Diagonalization	196
6.5	Shifters in Double-index Modal Logic	198
6.5.1	Monsters	198
6.5.2	Shifters and Diagonalization	199
6.5.3	Language SDML	201
6.6	Shortcomings	202
6.6.1	Cresswell's Argument	202
6.6.2	Conversational Contexts Versus Context of Utterance	204
6.6.3	Selectional Features and Other Missing Ingredients	204
6.6.4	Further Literature	205
7	Indexicals in Predicate Logic	207
7.1	Chapter Overview	208
7.2	Language FOLC	208
7.2.1	Syntax	209
7.2.2	Semantics	212
7.2.3	Some Technical Remarks	218
7.2.4	Auxiliary Notions	220
7.2.5	Modalities	223
7.2.6	Tense Binders	224
7.3	The Deictic Center	227
7.3.1	Now	227
7.3.2	Here	230
7.3.3	I	232
7.3.4	Actually	233
7.4	Complex Indicators	234
7.4.1	Example: yesterday	234
7.4.2	Example: the former president	236
7.4.3	Example: we	237
7.4.4	Example: the left entrance	239
7.5	Demonstratives	240
7.5.1	Example: this and that	240
7.5.2	Example: kore, sore, are	243
7.6	Shifters	244
7.6.1	Example: Amharic First-Person Indicator	245
7.6.2	Example: Russian Present Tense	246

7.6.3	Example: Dimli vizeri	247
7.7	Simplifications and Extensions	249
7.7.1	On the Eliminability of Context-Dependency	249
7.7.2	Possible Extensions	251
7.7.3	Limits of Reified Conversational Contexts	252
8	Indexicals in Thinking	255
8.1	Chapter Overview	256
8.2	De Dicto Cognitive Content of Indexicals	256
8.2.1	Example: now	257
8.2.2	Example: here	261
8.2.3	Example: I	262
8.3	Essential Indexicality	263
8.3.1	The Irreducibility Thesis	263
8.3.2	Self-Locating Belief	265
8.3.3	Quasi-Indicators	267
8.3.4	The Connection to Notions of Belief	268
8.4	Irreducibility in Thinking	269
8.4.1	The Problem of IR-Type Arguments for Descriptivism	269
8.4.2	Pro IFRT in Episodal Thinking	270
8.4.3	Are There Indexical Thoughts?	272
8.5	From Thinking to Language	275
8.5.1	IR-type Arguments and Cognitive Content	276
8.5.2	Which Kind of Cognitive Content Is Needed?	280
8.5.3	Belief and Behavioral Dispositions	284
8.5.4	Concluding Remarks	287
A	First-order Modal Logic	291
B	Miscellaneous Proofs	297