

Semantics

The study of meaning in language has developed dramatically over the last fifty years. *Semantics* is distinctive as it not only presents a general introduction to the topic, including the most recent developments, but it also provides a unique perspective for addressing current issues. It opens by introducing readers to the study of logic (natural deduction) as the background against which developments have taken place. This demonstrates the link between semantics and the study of reasoning and how this view can provide new solutions to the puzzles that have plagued the approaches presented in other textbooks. The major subject areas of semantics are discussed, including quantification, anaphora and discourse, tense and aspect, ellipsis and context and word meaning. The book also presents state-of-the-art research in topics at the forefront of semantics.

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An Introduction to Meaning in Language

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Contents

List of figures page x

Preface xi

1 Preliminaries for model building	1
1.1 Introduction	1
1.2 Explaining semantics: starting from words?	4
1.2.1 Constructing a semantic theory	8
1.3 Breaking out of the language circle	9
1.3.1 The language-of-thought hypothesis	9
1.3.2 Language and the world	11
1.4 Truth-conditional semantics	12
1.5 Logic, meaning and context	17
1.6 Further reading	21
2 The syntax of logical inference	22
2.1 Language and logic	22
2.2 Proof theory and model theory: syntax vs. semantics?	24
2.3 Logic, inference and natural-language semantics	26
2.3.1 Natural deduction: a syntactic mode of inference	27
2.4 Natural deduction for propositional logic	28
2.4.1 Conditional Elimination: <i>Modus Ponens</i>	29
2.4.2 Conditional Introduction: Conditional Proof	33
2.4.3 Negation and extending the set of conditional rules	35
2.4.4 The Elimination and Introduction rules for \wedge	38
2.4.5 \vee Introduction and \vee Elimination	41
2.4.6 <i>Reductio ad Absurdum</i> : a constrained variant	44
2.4.7 Commentary: propositional logic for linguists	47
2.5 Predicate logic	49
2.5.1 Predicate logic syntax	50
2.5.2 Proof rules of predicate logic	52
2.6 Defining inference proof-theoretically	62
2.6.1 The proof-theoretic force of the logical conditional	62
2.6.2 The de Morgan equivalences	64
2.6.3 Commentary: theoretical implications	65
2.7 Further reading	66
3 The semantics of logical inference: models and semantic types	68
3.1 Model-theoretic evaluation	68

viii	Contents	
	3.2 Models for propositional logic	69
	3.3 Model theory for predicate logic	71
	3.3.1 Defining a model	73
	3.3.2 Set theory: an introduction	74
	3.3.3 Model-theoretic semantics for predicate logic	75
	3.3.4 Model-theoretic evaluation of quantified formulae	77
	3.4 Inferential relations semantically defined	81
	3.5 Evaluating syntactic and semantic characterisations of inference	83
	3.6 Type theory	85
	3.6.1 The lambda operator	87
	3.6.2 Types reprised	92
	3.7 Interpreting typed expressions	94
	3.8 Summary	97
	3.9 Further reading	98
	4 Quantification and plurality	99
	4.1 Generalised quantifiers	99
	4.1.1 Quantifiers, compositionality and coverage	99
	4.1.2 Towards compositional quantification	102
	4.1.3 Interpreting quantifiers	105
	4.1.4 Cardinality quantifiers	109
	4.1.5 Contextual quantifiers	112
	4.1.6 Conservativity and monotonicity	114
	4.2 Plurals	119
	4.2.1 Interpreting plural noun phrases	120
	4.2.2 Extending the ontology	125
	4.2.3 Collective and distributive predicates	129
	4.2.4 Mass terms	133
	4.3 Coda	134
	4.4 Further reading	135
	5 Anaphora, discourse and context	137
	5.1 Noun phrases and discourse properties	137
	5.2 Anaphora and quantification	140
	5.2.1 Types of anaphora	140
	5.2.2 E-type pronouns	143
	5.3 Discourse Representation Theory (DRT)	147
	5.3.1 Introduction	147
	5.3.2 DRS construction	151
	5.3.3 Embedding	155
	5.3.4 Interpreting DRSs	159
	5.3.5 Accessibility	163
	5.4 Conclusion	166
	5.5 Coda	166
	5.6 Further reading	167
	6 Time, tense and events	169
	6.1 Time and tense	170

6.2	Simple tense logic	172
6.2.1	Some problems	176
6.3	Event theory	180
6.3.1	Types of eventualities	182
6.4	Tense in English	184
6.4.1	Reichenbach's analysis of tenses in English	184
6.4.2	Tense in DRT	185
6.5	Aspect and Aktionsart	190
6.5.1	Grammatical aspect	191
6.5.2	Lexical aspect	192
6.5.3	Representing aspect	196
6.6	Conclusion	205
6.7	Further reading	205
7	Ellipsis as a window on context	207
7.1	Puzzles at the syntax–semantics interface	207
7.2	Ellipsis: preliminaries	210
7.3	Ellipsis: linguistic debates	212
7.3.1	Ellipsis: syntactic puzzles	214
7.3.2	Ellipsis: semantic challenges	216
7.3.3	Ellipsis as pragmatic reconstruction	221
7.4	Ellipsis: towards a unitary account	223
7.5	Dynamic Syntax	225
7.5.1	The tree-logic and tree-growth processes	226
7.5.2	Quantification dynamics and the epsilon calculus	232
7.6	Ellipsis and context	235
7.6.1	Use of context-provided formulae	235
7.6.2	Context-provided structure	237
7.6.3	Context as a record of parsing actions	239
7.6.4	Context defined	241
7.7	Summary reflections	244
7.8	Further reading	244
8	What a word can mean	246
8.1	The Generative Lexicon	251
8.2	Semantic Minimalism	253
8.2.1	Ellipsis and criteria for identity of content	254
8.3	Variability in word meaning: new avenues of research	260
8.3.1	Word meaning as concept-clusters	260
8.3.2	Language as a tool-box	264
8.4	New directions in semantics	269
8.4.1	Semantics and pragmatics	270
8.5	Coda	272
8.6	Further reading	273

Bibliography 275

Index 285

Figures

4.1	Existential Sublimation of $[[Lecturer']]$	<i>page</i> 107
4.2	Universal Sublimation of $[[Student']]$	108
4.3	Negative Sublimation of $[[Dog']]$	108
4.4	The power set of $\{1, 2, 3, 4\}$.	126
4.5	The individual sum structure of $\{a, b, c\}$.	127

Preface

Semantics, broadly construed, is the study of meaning in language; but don't be fooled into thinking that such a characterisation is nothing more than a definition: a lot hangs on the word **in**. The theoretical study of semantics is the attempt to get to grips with what the expressions of a natural language contribute to some overall process of interpretation that the language makes possible. The challenge of understanding such a central aspect of human behaviour has gripped the greatest thinkers for many centuries and within many philosophical traditions.

The development of semantics, more narrowly, over the last half-century within linguistics, provides an almost textbook illustration of the way scientific theorising progresses. Intellectual argumentation feeds the sociology of academic custom; the successful view then squeezes out the rejected view so that it becomes first derided and then unthinkable; over time, this rejected stance emerges again, yet in a variant so transformed by the methodology of the successful view that new questions can be raised and new insights achieved that simply couldn't in principle have been articulated at the earlier stage of debate.

In the current state of play in semantics, the view which has held total sway for nearly half a century is now the invariable stance of all semantics textbooks: *semantics* is the articulation of the relation between natural language expressions and the world around which language enables humans to talk about. Yet, in the research that has been developing over the last twenty years, the assumptions on which semantics has been grounded have been progressively shifting; and, in consequence, earlier disputes over the relation between semantics and the cognitive enterprise in general can be seen in an entirely different light, with new insights into natural-language understanding emerging in the light of the way the formal tools developed in semantic theorising have evolved.

This textbook is novel in aiming to introduce its readers to semantics in a way that will enable them not merely to appreciate the way the discipline of semantics has evolved over the last thirty years, but also to see the significance of the various shifts that are continuing to take place. Readers are provided with sufficient background in logic to see how formal investigation of natural language is grounded in the concept of formal language defined in logic. From this, they are introduced to the dispute over the status of semantic representations within the explanation of natural language, with consequent total abandonment of any form of cognitive representation within semantic explanation. They are

then introduced in depth to some of the major areas of formal semantic research: quantification, anaphora, tense/aspect, ellipsis and lexical meaning. Through the detailed characterisation of research in these areas, we have tried to give a sense both of why formal semantics has been so justly pre-eminent in semantic research, and yet how development of formal-semantic tools have led to the re-exploration of semantic representations within semantic explanation, albeit in a totally transformed way. Finally, in conclusion, we have suggested that new work in some of these areas promises to provide a drawing together of cognitive and semantic approaches to natural language.

At the most broad level, our aim has been to give readers a sense of how formal tools transform the nature of theoretical debate by sharpening the focus of intellectual ideas and thereby create new questions and hence new insights. If the reader comes to see that the developments in formal semantics over the last half-century are indeed an illustration of why it is that, in fruitful theoretical research, there is so often the push-me pull-you relation between foundational insights and formal methodologies, then we will deem it to have succeeded in its aims.

This book has benefited from a number of different influences. It has been written since the second author's shift to the Philosophy Department at King's College London, and she is happy to thank the department for the entirely convivial intellectual atmosphere within which exploration of some of these ideas has taken place. It brings together different teaching experiences of semantics by all three authors severally teaching at both undergraduate and postgraduate levels; and, reflecting these, the book is aimed at senior undergraduates, and master's level students. Though the book combines introduction to semantics with introduction to logic, it has been quite explicitly written for linguistics students, and respecting that objective, we decided, after extended discussion, to write the logic sections ourselves, rather than turning to any one of a number of logicians who might well have been happy to contribute. Our view was that, in areas such as logic with tightly articulated formal content, it may sometimes be better to have an introduction written by authors somewhat outside the working core of the discipline, as only they can have a sense of what those coming from the other discipline need to know, and only they will be so crass as to try and extract just those relevant subparts.

So, in thanking those who have given us such support, we include first and foremost Dov Gabbay and Wilfried Meyer-Viol, from whom we have learnt an enormous amount over the years. There are however a lot of other people to thank, who have given us intellectual stimulation, friendship and collegiality over the years. Of the colleagues of the first author, special thanks go to Dan Wedgwood, who provided valuable input from the experience of teaching some of the material of this book, to Nik Gisborne for introducing him to the mysteries of lexical semantics, to Caroline Heycock, Bob Ladd, Heinz Giegerich and other colleagues at the University of Edinburgh whose friendship and collegiality have been a constant source of (critical) support over the last few decades. Then there

are colleagues from elsewhere in London University who have contributed to the development of these ideas either by their own work or by the influence their ideas have had on our own: Lutz Marten, Shalom Lappin, Jonathan Ginzburg. Thanks are also due to the two research teams at Edinburgh and London and other affiliated folk: David Adger, Stavros Assimakopoulos, Miriam Bouzouita, Stelios Chatzikyriakidis, Andrew Gargett, Patrick Healey, Christine Howes, Jieun Joe Kiaer, Akiko Kurosawa, Merilin Miljan, Greg J. Mills, Matt Purver, Yo Sato, Ian Underwood, Virve Vihman, Graham White, Yi-Cheng Wu, and Aiko Yamanaka. We thank Alexander Davies and Timothy Pritchard for valuable feedback on Chapter 8, Duilio d'Alfonso for very helpful discussions concerning the material in Chapters 2–3, and to members of the Philosophy Department and in particular Mark Textor, Richard Samuels and David Papineau for illuminating discussions. Of all the friends and colleagues with whom we have argued over the years about the issues raised in this book, whether in agreement or disagreement, we would like to thank in particular: Nicholas Asher, Emmon Bach, Holly Branigan, Robyn Carston, Wynn Chao, Robin Cooper, Annabel Cormack, Arash Eshghi, Raquel Fernández-Rovira, Tim Fernando, Justin Fitzpatrick, Chris Frauenberger, Asli Göksel, Jennifer Kane, Hans Kamp, Udo Klein, Nathan Klinedinst, Miltiadis Kokkonidis, Ivona Kucerova, Nancy Kula, Yuki Kuroda, Staffan Larsson, Trevor Marchand, Greg J. Mills, Glyn Morrill, Ad Neeleman, Stanley Peters, Martin Pickering, Paul Piwek, Devyani Sharma, Horst Simon, Mark Steedman, Graham Stewart, Matthew Stone, Elizabeth Traugott, Stavroula Tsiplakou, Hiroyuki Uchida, Hans van der Koot, Klaus von Heusinger, Reiko Vermeulen and Deirdre Wilson, all of whom have contributed in one way or another to the crystallisation of our views. We thank Helen Barton, Andrew Winnard and their production team at Cambridge University Press for getting us cheerfully through the book-preparation process. The first-named author is grateful for support in the final stages of preparing this book from the Leverhulme Trust (Major Research Fellowship F00158BF). The second and third authors are grateful for support from both the Leverhulme Trust for its support of the Dialogue Matters research network (F07 04OU), during which crystallisation of the ideas about word meaning and ellipsis modelling have evolved, and to the ESRC for its support of the Dynamics of Conversational Dialogue project during the final stages of preparation (ESRC RES-062-23-0962).

Finally we thank Ruth's mother for still remaining healthy and well at such an advanced age throughout the final stages of preparing this manuscript. We dedicate this book to her in testament to her fortitude, her ability to combine a strong sense of philosophical enquiry with an equally strong sense of humour, and her Quaker training in never giving in when times get hard. The model she has provided for her family has, indirectly, been a model to us all.