Understanding Semantics

Second Edition

Sebastian Löbner



Understanding

Semantics

Second edition

常等bastian Figurer 藏书章



First published in Great Britain 2002 by Hodder Arnold, an imprint of Hodder Education

Second edition published 2013 by Routledge 2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

Simultaneously published in the USA and Canada by Routledge 711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2002, 2013 Sebastian Löbner

The right of Sebastian Löbner to be identified as author of this work has been asserted by him in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

Library of Congress Cataloging in Publication Data

Löbner, Sebastian.

Understanding semantics / Sebastian Löbner. -- Second Edition.

pages cm. -- (Understanding language)

Previous edition published under Hodder Education, the second edition is now published under Routledge after Hodder Education Linguistic titles were acquired in 2012.

Includes bibliographical references and index.

1. Semantics. I. Title.

P325.L567 2013 401'.43--dc23 2012048797

ISBN: 978-0-415-82673-0 (hbk) ISBN: 978-1-4441-2243-5 (pbk) ISBN: 978-0-203-52833-4 (ebk)

Typeset in 11 on 12pt Minion by Phoenix Photosetting, Chatham, Kent

Preface

As for many others, my entrance into semantics was formal semantics, about forty years ago. At present, this is still the standard approach in many linguistics departments around the world. Working in the field of semantics my entire academic life, my conviction has grown that formal semantics is not the ideal framework for working one's way into the rich and fascinating reality of natural language meaning. The perspectives allowed by the formal apparatus developed in formal semantics are far too restrictive. And the aspects of meaning and the semantic phenomena that are neglected, or are simply problematic to deal with, are far too numerous. Above all, formal semantics has little to say about lexical meaning – which, after all, provides the ultimate basis of all linguistic meaning – and, not by chance, it fails to connect semantic theory to cognition.

In Understanding Semantics, I have taken a different approach. It is driven by the idea that students of semantics should first grasp the level of meaning which linguistic semantics aims to describe and how this level is related to higher levels of interpretation; they should learn that there are different dimensions of meaning, in addition to descriptive meaning; they should know about ambiguity and about the existence of meaning shifts that interfere with lexical meaning; they should get a notion of the rich inventory of indexical means of expression including deixis, determination and presupposition carriers; they should learn the basics of lexical semantics of nouns and verbs; they should know that there are different theoretical approaches to meaning; and they should get a notion of the fact that linguistic meaning is ultimately a matter of conceptualizing the things we talk about: when we put things into words, we are not just giving a one-to-one mapping of what the world is like – we make a choice by putting things in the particular way we do. Meaning is not just a matter of logical relations and truth conditions. As to sentential meaning, the students need to know about the basic semantic functions of NP determination and the verbal categories of aspect and tense, and they should know the basics of predication. All this should be discussed from a perspective that also takes a look at other languages. On this complex background, the more advanced students may start to work their arduous way into the theory and technicalities of formal semantics. In order to give an idea of the basic notions of this approach, the book offers a substantial basic introduction in the last chapter, and a critique.

The second edition of *Understanding Semantics* is not only a more up-to-date version of the first edition, but is supplied with new sections that considerably broaden the coverage of the field. These include:

- basic notions of the semantics of word formation (chapters 1 and 12)
- deixis and demonstratives (chapter 4)
- presuppositions (chapters 4 and 7)
- NP semantics (chapter 4)
- verb semantics including voice, aspect and tense (chapter 6)
- · Barsalou frames (chapter 12).

The book is accompanied by a website that provides additional support for students and instructors (http://www.routledge.com/cw/loebner). Along with a number of additional minor features, the webpage provides

- · a checklist of key notions for each chapter, interlinked with
- · a glossary of all technical terms
- pdf versions of all figures and tables for your use in teaching, presentations, term papers, etc.
- solutions to the exercises (instructors only).

Acknowledgements

Among the many people that directly or indirectly were of help in writing this book and preparing the second edition, I want to express my gratitude to Daniel Hole, Berlin, who took the trouble of commenting in detail on substantial new parts of the second edition. I would also like to thank Rachel Daw and Nadia Seemungal at Routledge for their kind and competent support and guidance for the second edition.

Contents

Acknowledgements		ıx xi
1	Meaning and semantics	. 1
	1.1 Levels of meaning	1
	1.2 Sentence meaning and compositionality	7
	1.3 Semantics: its scope and limits	14
	Exercises	16
	Further reading	17
2	Dimensions of meaning	18
	2.1 Meanings are concepts	18
	2.2 Descriptive meaning	21
	2.3 Meaning and social interaction: the dimension of social mea	
	2.4 Meaning and subjectivity: the dimension of expressive mean	ing 33
	2.5 Connotations	36
	2.6 Dimensions of meaning	37
	Exercises	39
	Further reading	40
3	Ambiguity	41
	3.1 Lexemes	41
	3.2 Lexical ambiguity	44
	3.3 Compositional ambiguity	48
	3.4 Contextual ambiguity	49
	3.5 Meaning shifts and polysemy	57
	Exercises	59
	Further reading	60
4	Meaning and context	62
	Part 1: Deixis	62
	4.1 Person deixis	63
	4.2 Demonstratives and place deixis	70
	4.3 Time deixis	72
	Part 2: Determination	74
	4.4 Definiteness and indefiniteness	74
	4.5 Quantification	83

Co	nte	nts

	4.6 Generic NPs	90
	Part 3: Presuppositions	94
	4.7 Presuppositions	94
	4.8 Summary	101
	Exercises	102
	Further reading	104
5	Predication	106
	5.1 Predications contained in a sentence	106
	5.2 Predicate terms and argument terms, predicates and arguments	108
	5.3 Verbs	111
	5.4 Nouns and adjectives	115
	5.5 Predicate logic notation	120
	5.6 Thematic roles	122
	5.7 Selectional restrictions	125
	5.8 Summary	130
	Exercises	131
	Further reading	133
6	Verbs	134
	6.1 Argument structure, diatheses and alternations	135
	6.2 Situation structure	140
	6.3 Aspect	150
	6.4 Tense	157
	6.5 Selected tense and aspect systems	163
	6.6 Concluding remark	164
	Exercises	165
	Further reading	166
7	Meaning and logic	167
	7.1 Logical basics	167
	7.2 Logical properties of sentences	172
	7.3 Logical relations between sentences	175
	7.4 Sentential logic	184
	7.5 Logical relations between words	187
	7.6 Logic and meaning	191
	7.7 Classical logic and presuppositions	197
	Exercises	201
	Further reading	202
8	Meaning relations	203
	8.1 Synonymy	203
	8.2 Hyponymy	205
	8.3 Oppositions	208
	8.4 Lexical fields	215

_		Contents	vii
	Exercises		219
	Further reading		220
9	Meaning components		221
	9.1 The structuralist approach		223
	9.2 Applying the structuralist approach to meaning		226
	9.3 Semantic features		228
	9.4 Semantic formulae		237
	9.5 Semantic primes: Wierzbicka's Natural Semantic Metalanguage		242
	9.6 Summary and evaluation of the approaches to decomposition		245
	Exercises		246
	Further reading		246
10	Meaning and language comparison		248
	10.1 Translation problems		248
	10.2 Headache, international		251
	10.3 Relativism and universalism		256
	10.4 Berlin and Kay's investigation of colour terms		258
	10.5 Consequences		262
	Exercises		263
	Further reading		264
11	Meaning and cognition		265
	11.1 Categories and concepts		266
	11.2 Prototype theory		267
	11.3 The hierarchical organization of categories		276
	11.4 Challenges to prototype theory		279
	11.5 Semantics and prototype theory		284
	11.6 Semantic knowledge		292
	11.7 Summary		298
	Exercises		300
	Further reading		300
12	Frames		301
	12.1 Barsalou frames		301
	12.2 Verbs and frames		311
	12.3 Nouns and frames		313
	12.4 Frames and composition		319
	12.5 Frames and cognition		321
	12.6 Conclusion		322
	Exercises		323
	Further reading		324
13	Formal semantics		325
	13.1 Japanese numerals: a simple example of a compositional analysi	S	325

viii Contents	
13.2 A small fragment of English	330
13.3 Model-theoretic semantics	342
13.4 Possible-world semantics	352
13.5 The scope and limits of possible-world semantics	358
Exercises	362
Further reading	363
References	364
Index	369

Meaning and semantics

Semantics is the part of linguistics that is concerned with meaning. This is, of course, a very superficial definition. The crucial term 'meaning' on which the definition rests has several different readings – a first semantic observation which you will find at the beginning of almost every textbook on semantics. Among the many uses of the notion 'meaning', only some belong to the field of linguistic semantics. Meaning is always the meaning of something. Words have meanings, as do phrases and sentences. But deeds may have meaning too. If a government pursues a certain policy, we may ask what the meaning is of doing so. The 'meaning' of an action or a policy is what sense it makes or what purpose it serves or what it is good for. More generally, we apply the notion of meaning to all sorts of phenomena that we try to make sense of.

The first thing to be stated is that linguistic semantics is exclusively concerned with the meanings of linguistic expressions such as words, phrases, grammatical forms and sentences, but not with the meanings of actions or phenomena. We will approach the problem of linguistic meaning step by step, to arrive at a more precise definition of semantics at the end of this chapter. A more concrete idea of what semantics is about will result when you learn about the many facets of this fascinating discipline in the course of this book.

1.1 LEVELS OF MEANING

Even if we restrict the study of meaning to words and sentences, the notion of meaning has to be further broken down into different levels at which we interpret words and sentences.

1.1.1 Expression meaning

Let us get started by looking at a simple example that will illustrate what semantics is about.

(1) I don't need your bicycle.

This is an ordinary English sentence. Without even noticing, you have already recognized it as such, you have interpreted it and you are probably imagining a situation where you would say it or someone would say it to you. Since you understand the sentence, you know what it means. But knowing what the sentence

means is one thing, describing its meaning is another. The situation is similar with almost all our knowledge. We may exactly know how to get from one place to another, yet be unable to tell the way to someone else. We may be able to sing a song by heart, but unable to describe its melody. We are able to recognize tens of thousands of words when we hear them. But the knowledge that enables us to do so is unconscious. Uncovering the knowledge of the meanings of words and sentences and revealing its nature is the central objective of semantics.

Let us now try to determine the meaning of the sentence in (1). We start from the meanings of the words it contains. The main verb in a sentence occupies a key role. So, what is the meaning of the verb *need*? Actually, there are two verbs *need*: an auxiliary verb (as in *I need not go*) and a full verb. In (1) we have the full verb. It is used with a direct object (*your bicycle*) and roughly means require. We 'need' something if it is necessary or very important for us. In (1), what is needed is described by an expression composed of the possessive pronoun *your* and the noun *bicycle*. The noun means some sort of vehicle, usually with two wheels and without a motor.

The words *need* and *bicycle* are the main carriers of information in the sentence, so-called **content words**. The meanings of most content words are very differentiated because there are thousands of the same kind. All the other elements in our sentence are different in that they represent items from a very limited choice of expressions of the same kind. Such words are called **function words** and include articles, pronouns, prepositions, conjunctions and other 'small' words. We will examine these elements one by one.

The subject expression *I* is one of seven personal pronouns in English (*I*, you, he, she, it, we and they). What is the meaning of *I*? If Mary says the sentence in (1), it is Mary who is said not to need the bicycle. If John says (1), it is John. In other words, *I* is used for the one who says it; more technically: for the one who produces an occurrence of this pronoun. The technical term for using an expression for something is **reference**. When people use *I*, they **refer** to themselves. The entity referred to by an expression is called its **referent**. The meaning of the pronoun can thus be described as follows: *I* indicates reference to the speaker. Similarly, the pronoun you indicates reference to the addressee or the addressees.

For each personal pronoun there is a corresponding possessive pronoun: *I-my*, *you-your*, etc. *Your* in (1) indicates that the bicycle referred to is linked to the addressee(s). For such a link, there is a broad variety of relations possible. Possession in the sense of ownership is only one option: the expression *your bicycle* may also refer to the bicycle the addressee is just riding or cleaning or repairing, or even the bicycle they have been talking about for the last ten minutes. The meaning of *your* can roughly be described as linked to the addressee(s).

¹ It is common practice in linguistic texts to mark words which are referred to in a sentence, rather than just used, by using italics. In addition, I use italics for emphasis. Whether a word is referred to or used emphatically is always clear from context.

^{2 ...} quotes are used for meanings and concepts.

³ I use they as a gender-neutral 3rd person singular pronoun.

The form *don't* is a contraction of the auxiliary verb *do* and the negation particle *not*. *Don't* contributes two things to the meaning of the sentence. It negates the verb *need* and thereby turns its meaning into the contrary. In addition, the form *don't* contributes present tense. Tense is the indication that the sentence refers to a certain time, e.g. present, past or future time. The actual time referred to depends on when the sentence is uttered. Due to the present tense in (1), we will by default relate the situation described to the 'present' time, i.e. the time when the sentence is being uttered. Combining these two components of *don't*, we may say: the meaning of *don't* is an indication of reference to the time when the sentence is uttered and it turns the situation expressed by the main verb into the contrary.

So far this has been an attempt to determine the meaning of each word in the sentence *I don't need your bicycle*. This is typical of the work of a semanticist. As you will have noticed, it is not trivial. For a content word, the description of its meaning must be specific enough to distinguish it from all words with other meanings. It would not suffice to describe the meaning of *bicycle* merely as vehicle with two wheels, because there are other kinds of vehicles with two wheels, such as motorcycles, kick scooters or kids' balance bicycles. At the same time, the description must be general enough to cover all cases in which this word could be used. Since one usually imagines a particular context when one tries to think of a word and its meaning, one tends to take the meaning too specifically, disregarding other cases in which the word can also be used.

As for function words like pronouns and auxiliaries and for grammatical forms such as present tense, their meanings may at first view seem elusive. But it is possible to account for them too, as our little discussion may have illustrated.

If we put all the pieces together, we can describe the meaning of the sentence as a whole. It can be roughly formulated as: >for the speaker, the two-wheeled vehicle of the addressee(s) is not required at the time when this is being uttered.

It is very important to realize that the sentence leaves open who the speaker and the addressee(s) are, what particular time is referred to and which bicycle. This is not part of its meaning. Such questions can only be settled if the sentence is actually used on a concrete occasion. What is, however, determined by the meaning of the sentence is how the answers to these questions depend on the occasion when the sentence is used. First, if it is actually used, it is necessarily used by someone who produces the sentence. With I in subject position, the sentence 'tells' us that it is the speaker who does not need the bicycle. The use of I functions like an instruction: find out who produced this sentence, this is the referent of I. Second, the use of your presupposes that there are one or more addressees. The sentence describes the bicycle as related to them. Third, if a sentence is uttered, it is necessarily used at a certain time. The time of utterance serves as the reference time for determining what is present, past or future. The present tense part of the meaning of the sentence conveys the instruction: attribute the situation described to the time when the sentence is said. Thus the meaning of the sentence specifies the way in which its reference is determined if and when it is used at some occasion.

The meanings of words, phrases and sentences, taken out of any particular context constitute the level of meaning which will henceforth be called **expression meaning**.

Expression is just a cover term for words, phrases and sentences. The term expression meaning covers in particular word meaning and sentence meaning. As you have noticed, the determination of expression meaning requires an abstraction from the use of the expressions in concrete contexts. In this sense, the notion of expression meaning itself is an abstraction and a theoretical construct. But it is justified in the way language is conceptualized not only in linguistics but also in common thinking: we do talk about the meanings of words and complex expressions as such, i.e. we do address this level of meaning.

1.1.2 Utterance meaning

Let us now examine what happens when the sentence in (1) is actually used. We will consider two scenarios.

SCENARIO 1

1 August 2012, morning. Mary has been planning a trip to town that afternoon. Two days before, she talked with her neighbour John about the trip and asked him to lend her his bicycle. She had lent her car to her daughter and did not know if she would get it back in time. Meanwhile her daughter is back and has returned Mary's car. Mary is talking with John on her mobile, telling him:

I don't need your bicycle.

Used in this context, the sentence receives a concrete interpretation. References are fixed: the personal pronoun *I* refers to Mary, the possessive pronoun *your* links the bicycle to her neighbour John and the time reference is fixed, too: in the given context, the present tense verb will be taken to refer to the afternoon of 1 August 2012. This is clear from the fact that Mary could have said: *I don't need your bicycle this afternoon*, without changing the meaning of her utterance. Furthermore, the reference of the grammatical object *your bicycle* is fixed: it is the bicycle Mary asked John to lend her two days before.

This is a different level of meaning, called **utterance meaning**. It comes about when a sentence with its expression meaning is actually used in a concrete context and all references get fixed. When this happens, another central notion comes into play, the notion of **truth**. If Mary says (1) in scenario 1, the sentence is true. But in a slightly different scenario it might be false. As long as the sentence (1) is not actually used with concrete reference, it fails to be true or false. The question of truth primarily concerns 'declarative' sentences such as the one under review. Only such sentences, when uttered, are true or false. But it matters also for interrogative and other types of sentences. For example, if John asked Mary *Do you need my bicycle?*, the use of the question form would convey that he wants to know from his addressee whether it is true or false.

Let us now imagine a different scenario:

SCENARIO 2

Same time and place. John's five-year-old daughter Maggie is playing at her place with her friend Titus. They are playing with a game of cards that display all kinds of vehicles. Titus holds a card that shows a snowmobile. Maggie is eager to exchange this card for one of hers and offers Titus a card with a bicycle. Titus rejects the exchange:

I don't need your bicycle.

In this scenario, references of *I, your* and the present tense are fixed accordingly. What is interesting is that in such a context the word *bicycle* can be naturally interpreted as referring not to a real bicycle but to a card carrying the picture of a bicycle. Are we to conclude that the lexical meaning of *bicycle* must be taken as covering not only real bicycles but also pictures of this kind of vehicle and things that display such a picture? The answer is 'No'. The word *bicycle* literally means real bicycles, but when used in special contexts it *can* also mean 'picture of a bicycles, 'card with a picture of a bicycles, 'toy bicycles, 'replica of a bicycles, etc. or also 'someone riding on a bicycles in utterances like 'Stop, there's a bicycle coming!' This, however, is a matter of utterance meaning. What happens in such cases is that the lexical meaning is shifted for obtaining an utterance meaning that fits into the given context. Such shifts are quite common; there are many shifting-patterns at our disposal.

For a general definition of utterance meaning, we need a notion for what was called 'occasion', 'context' or 'scenario' above. The technical term for this is **context of utterance**. The context of utterance, **CoU** for short, is the sum of circumstances that bear on reference and truth.

DEFINITION 1 Context of utterance

The context of utterance (CoU) comprises the following aspects of the situation in which an utterance is produced:

- the speaker (or producer) of the utterance
- the *addressee(s)* (or recipient(s)) of the utterance
- the time at which the utterance is produced and/or received
- the *place* where the utterance is produced and/or received
- the facts given when the utterance is produced and/or received

We have seen in connection with (1), how utterance meaning may depend on who the speaker and addressees of an utterance are and at which time it is produced. The place where an utterance is made matters for the reference of expressions such as here, there, upstairs, downtown, etc. as well as for the truth of sentences like It's raining. Facts matter principally for truth as well as for reference. For example, Mary can only refer to John's bicycle in such CoUs where a certain bicycle is related to John. CoUs may be real or fictitious. If we read a work of fiction or watch a movie, the relevant facts and figures are those of the story.

Against this background, **utterance meaning** can be defined as the meaning that results from an expression being used and interpreted in a given CoU. Utterance meaning derives from expression meaning on the basis of the particulars provided by the CoU.

The notion of utterance meaning does not include all that an addressee may make of an utterance in a particular CoU. Addressees usually make all kinds of inferences. For example, in scenario 1, John may infer that Mary is still planning to make the trip since otherwise she would have told him; that she would have asked him to lend her his bicycle if she could not have used her car; that, however, her daughter is back with the car and that Mary is not going to lend her the car again on that afternoon; that Mary will take the car for her trip; that she considers herself able to drive, etc. All this is not explicitly said with that sentence, and it need not be true under different circumstances. In the given scenario, these inferences can be considered communicated because Mary can rely upon John's understanding them. Although these inferences are triggered in the addressee's mind by the utterance of the sentence, it is important to separate what is actually being said from what is only inferred. The investigation of such inferences, their role in communication and how they are related to the utterance meaning of what is actually said, is an important part of pragmatics, the scientific study of the rules that govern the use of language. Within pragmatics, Grice's theory of 'conversational implicatures' and Relevance Theory by Sperber and Wilson deal with inferences of this kind.

1.1.3 Communicative meaning

Neither the level of expression meaning nor that of utterance meaning is the final and crucial level of interpretation. In an actual exchange, our main concern inevitably is this: what does the speaker intend – in particular, what does the speaker want from me? Conversely, when we say something, we choose our words in pursuit of a certain communicational intention. Verbal exchanges are a very important form of social interaction. They will always be interpreted as part of the whole social exchange and relationship entertained with the speaker.

One and the same sentence can be uttered with quite different communicative results. The utterance of (1) in scenario 1 will be taken as a withdrawal of a former request. In scenario 2, the utterance of the same sentence constitutes the rejection of an offer. In other CoUs, uttering the sentence could serve still other communicative ends. A theory that addresses this level of interpretation is **speech act theory**, introduced in the 1950s by the philosopher John L. Austin (1911–60) and developed further by others, in particular John R. Searle. The central idea of speech act theory is that whenever we make an utterance in a verbal exchange we act on several levels. One level is what Austin calls the 'locutionary act', defined as the act of saying an expression with a certain utterance meaning in the given CoU. In doing so, we also perform an 'illocutionary act', i.e. a certain type of 'speech act': a statement, a question, a request, a promise, an offer, a refusal, a confirmation, a warning, etc. When Titus in scenario 2 says *I don't need your bicycle*, he performs the locutionary

act of saying that he doesn't need Maggie's card with the bicycle and the illocutionary act of rejecting her offer. The speech act level of interpretation will be referred to as **communicative meaning**.

The three levels of interpretation are connected as follows. Expression meaning is the level of interpretation which results if the only information we use is the mere linguistic material. Expression meaning forms the basis for utterance meaning, but does not determine it. For, as we could see, a sentence with its fixed expression meaning will take on different utterance meanings if it is used in a particular context. Utterance meaning, in turn, forms the basis of communicative meaning, without, again, determining it. For utterances with the same utterance meaning can serve the performance of different types of speech acts, depending on the ongoing social interaction. Table 1.1 gives a survey of the three levels of meaning and how they are defined.

Table 1.1 Three levels of meaning

Level of meaning	Definition
expression meaning	the meaning of a simple or complex expression taken in isolation
utterance meaning	the meaning of an expression when used in a given context of utterance resulting from fixing reference
communicative meaning	the meaning of an utterance as a communicative act in a given social setting

1.2 SENTENCE MEANING AND COMPOSITIONALITY

1.2.1 Lexical vs compositional meaning

We will now take a closer look at sentence meaning. It is a trivial fact that the meanings of words and sentences differ in one important point. Meanings of words must simply be known and therefore learned. In our minds, we host a huge **lexicon** where all the words we know and their meanings are stored and at our disposition. Stored meanings are therefore called **lexical meanings**.

Words can be combined into sentences. We are usually able to understand the expression meaning of a sentence without any conscious effort. Nevertheless, this ability is based on complex cognitive processes which take place in our minds automatically and unconsciously. The process by which we calculate the meaning of a sentence is called **composition**, and the resulting meaning is known as **compositional meaning**. In some cases, sentences may have lexical meaning, for example proverbs such as *The early bird catches the worm*. This does not mean that their meanings are merely non-compositional. Rather, such sentences have a regular compositional non-proverbial meaning plus a special meaning which we have to learn and store in our lexicon.