Semantics

Third Edition

John I. Saeed

Semantics

Introducing Linguistics

This outstanding series is an indispensable resource for students and teachers – a concise and engaging introduction to the central subjects of contemporary linguistics. Presupposing no prior knowledge on the part of the reader, each volume sets out the fundamental skills and knowledge of the field, and so provides the ideal educational platform for further study in linguistics.

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John I. Saeed

To Joan, Alexander and Isabel

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Preface

This is an introduction to semantics for readers new to the subject. The aim of the book is not to propose a new theory of semantics, nor to promote any single current approach but to give the reader access to some of the central ideas in the field and an introduction to some of its most important writers. Semantics, however, is a very broad and diverse field and keeping the book to a manageable size has involved a fairly firm selection of topics. Inevitably this selection will not please everyone but I hope readers will be able to gain a feel for what doing semantics is like, and gain the background to proceed to more advanced and specialized material in the primary literature.

The book assumes no knowledge of semantics but does assume a general idea of what linguistics is, and some familiarity with its traditional division into fields like phonetics, phonology, morphology, syntax, etc. Thus it would be useful if the reader had already looked at a general introduction to linguistics.

The book is organized into eleven chapters, which are grouped into three main sections. Part I, **Preliminaries**, consists of the first two chapters and is concerned with the place of semantics within linguistics and its relations with the disciplines of philosophy and psychology, which share some of the same interests. Part II, **Semantic Description**, is the main part of the book and introduces central topics in the analysis of word and sentence meaning. Part III, **Theoretical Approaches**, reviews three important semantic theories: componential theory, formal semantics and cognitive semantics.

Each chapter includes a set of exercises to allow the reader to explore the issues raised, and suggestions for further reading. These will be a small selection of works which provide accessible investigations of the chapter's topics. In the text there are a large number of references to the semantics literature. These will frequently be works which are too specialized to attempt before the reader completes this book, but are given so that any particular interests may be followed up.

Examples from different languages are given in the transcription of the original source, and are commented on only when it is germane to the discussion. A list of symbols and abbreviations used in this text is given in the Abbreviations and Symbols list on pp. xix–xx.

I have used this book as a text in my courses in the Centre for Language and Communication Studies, Trinity College Dublin. I would like to thank my students for their responses and comments which have been invaluable in getting the text into its present form. I am indebted to Philip Jaggar, Mark Keane, James Levine and Feargal Murphy, who read the entire manuscript and made many suggestions, which improved the book and saved me from my worst mistakes. I am also grateful to those who have commented on particular sections, discussed specific language data, and provided me with source materials, in particular Abdullahi Dirir Hersi, Barbara Abbott, Martin Emms, Tim Fernando, Jim Jackson, Jeffrey Kallen, Ruth Kempson, Patricia Maguire, Cathal O Háinle, Sarah Smyth, Tadaharu Tanomura, Ib Ulbaek, Tony Veale, Carl Vogel, and Sheila Watts. None of the above is of course responsible for how the book turned out in the end; that is entirely my responsibility. The first draft of the book was written while I was enjoying the academic hospitality of the Department of African Languages and Cultures of the School of Oriental and African Studies, University of London. I would like to thank the members of that department, in particular Dick Hayward and Philip Jaggar, for making my time there so enjoyable and profitable. That visit was supported by the Trinity College Dublin Arts and Social Sciences Benefactions Fund.

This third edition has been revised and updated, and includes a new section of suggested solutions to selected exercises. I would once again like to thank the readers and users of the book who have sent me their comments and suggestions. I would like to thank Tony Veale again for his advice on cognitive semantics and Carl Vogel for his support as a colleague. While planning this edition I was a visiting fellow at La Trobe University's Research Centre for Linguistic Typology and I would like to thank Bob Dixon and Sasha Aikhenvald and their colleagues for their generosity hospitality and for providing such a stimulating environment. Finally I would like to thank Joan, Alexander and Isabel for their love and support.

The extract from the screenplay of *Interiors* in chapter 7 is used by kind permission, © 1977 United Artists Corporation. All rights reserved.

J. I. S.

Preliminaries

part I

Semantics in Linguistics

1.1 Introduction

Semantics is the study of meaning communicated through language. This book is an introduction to the theory and practice of semantics in modern linguistics. Although this is not an introduction to any single theory, we begin with a basic assumption: that a person's linguistic abilities are based on knowledge that they have. It is this knowledge that we are seeking to investigate. One of the insights of modern linguistics is that speakers of a language have different types of linguistic knowledge, including how to pronounce words, how to construct sentences, and about the meaning of individual words and sentences. To reflect this, linguistic description has different **levels of analysis**. So **phonology** is the study of what sounds a language has and how these sounds combine to form words; **syntax** is the study of how words can be combined into sentences; and **semantics** is the study of the meanings of words and sentences.

The division into levels of analysis seems to make sense intuitively: if you are learning a foreign language you might learn a word from a book, know what it means, but not know how to pronounce it. Or you might hear a word, pronounce it perfectly, but not know what it means. Then again, you might know the pronunciation and meaning of, say, a noun, but not know

how its plural is formed or what its genitive case looks like. In this sense knowing a word unites different kinds of knowledge, and this is just as true of your knowledge of how to construct phrases and sentences.

Since linguistic description is an attempt to reflect a speaker's knowledge, the semanticist is committed to describing semantic knowledge. This knowledge allows English speakers to know, for example: that both the following sentences describe the same situation:

1.1   In the spine, the thoracic vertebrae are above the lumbar vertebrae.

1.2   In the spine, the lumbar vertebrae are below the thoracic vertebrae.

that 1.3 and 1.4 below **contradict** each other:

1.3   Addis Ababa is the capital of Ethiopia.

1.4   Addis Ababa is not the capital of Ethiopia.

that 1.5 below has several possible meanings, i.e. is **ambiguous**:

1.5   She gave her the slip.

that 1.6 below **entails** 1.7:

1.6   Henry murdered his bank manager.

1.7   Henry's bank manager is dead.

We will look at these types of semantic knowledge in more detail a little later on; for now we can take **entailment** to mean a relationship between sentences so that if a sentence *A* entails a sentence *B*, then if we know *A* we automatically know *B*. Or alternatively, it should be impossible at the same time to assert *A* and deny *B*. Knowing the effect of inserting the word *not*, or about the relationships between *above* and *below*, and *murder* and *dead*, are aspects of an English speaker's semantic knowledge, and thus should be part of a semantic description of English.

As our original definition of semantics suggests, it is a very broad field of inquiry, and we find scholars writing on very different topics and using quite different methods, though sharing the general aim of describing semantic knowledge. As a result semantics is the most diverse field within linguistics. In addition, semanticists have to have at least a nodding acquaintance with other disciplines, like philosophy and psychology, which also investigate the creation and transmission of meaning. Some of the questions raised in these neighbouring disciplines have important effects on the way linguists do semantics. In chapter 2 we discuss some of these questions,

but we begin in this chapter by looking at the basic tasks involved in establishing semantics as a branch of linguistics.

1.2   Semantics and Semiotics

So we see our basic task in semantics as showing how people communicate meanings with pieces of language. Note, though, that this is only part of a larger enterprise of investigating how people understand meaning. Linguistic meaning is a special subset of the more general human ability to use signs, as we can see from the examples below:

1.8   Those vultures mean there's a dead animal up ahead.

1.9   His high temperature may mean he has a virus.

1.10   The red flag means it's dangerous to swim.

1.11   Those stripes on his uniform mean that he is a sergeant.

The verb *mean* is being put to several uses here, including inferences based on cause and effect, and on knowledge about the arbitrary symbols used in public signs. These uses reflect the all pervasive human habit of identifying and creating signs: of making one thing stand for another. This process of creating and interpreting symbols, sometimes called **signification**, is far wider than language. Scholars like Ferdinand de Saussure (1974) have stressed that the study of linguistic meaning is a part of this general study of the use of sign systems, which is called **semiotics**.[1] Semioticians investigate the types of relationship that may hold between a sign and the object it represents, or in de Saussure's terminology between a **signifier** and its **signified**. One basic distinction, due to C. S. Peirce, is between **icon**, **index** and **symbol**. An icon is where there is a similarity between a sign and what it represents, as for example between a portrait and its real-life subject, or a diagram of an engine and the real engine. An index is where the sign is closely associated with its signified, often in a causal relationship; thus smoke is an index of fire. Finally, a symbol is where there is only a conventional link between the sign and its signified, as in the use of insignia to denote military ranks, or perhaps the way that mourning is symbolized by the wearing of black clothes in some cultures and white clothes in others. In this classification, words would seem to be examples of verbal symbols.[2]

In our discussion of semantics we will leave this more comprehensive level of investigation and concentrate on linguistic meaning. The historical development between language and other symbolic systems is an open question: what seems clear is that language represents man's most sophisticated use of signs.

1.3 Three Challenges in Doing Semantics

Analysing a speaker's semantic knowledge is an exciting and challenging task, as we hope to show in this book. We can get some idea of how challenging by adopting a simple but intuitively attractive theory of semantics which we can call the **definitions theory**. This theory would simply state that to give the meaning of linguistic expressions we should establish definitions of the meanings of words. We could then assume that when a speaker combines words to form sentences according to the grammatical rules of her[3] language, the word definitions are combined to form phrase and then sentence definitions, giving us the meanings of sentences. Let us investigate putting this approach into practice.

As soon as we begin our task of attaching definitions to words, we will be faced with a number of challenges. Three in particular prove very tricky for our theory. The first is the problem of **circularity**. How can we state the meaning of a word, except in other words, either in the same or a different language? This is a problem that faces dictionary writers: if you look up a word like *ferret* in a monolingual English dictionary, you might find a definition like 'Domesticated albino variety of the polecat, *Mustela putorius*, bred for hunting rabbits, rats, etc.' To understand this, you have to understand the words in the definition. According to our aims for semantics, we have to describe the meanings of these words too, beginning with *domesticated*. The definition for this might be 'of animals, tame, living with human beings'. Since this definition is also in words, we have to give the meaning, for example, of *tame*. And so on. If the definitions of word meaning are given in words, the process might never end. The question is: can we ever step outside language in order to describe it, or are we forever involved in circular definitions?

A second problem we will meet is how to make sure that our definitions of a word's meaning are exact. If we ask where the meanings of words exist, the answer must be: in the minds of native speakers of the language. Thus meaning is a kind of knowledge. This raises several questions, for example: is there a difference between this kind of knowledge and other kinds of knowledge that people have? In particular: can we make a distinction between **linguistic knowledge** (about the meaning of words) and **encyclopaedic knowledge** (about the way the world is)? For example, if I believe that a whale is a fish and you believe that it is a mammal, do our words have different meanings when we both use the noun *whale*? Presumably you still understand me when I say *I dreamt that I was swallowed by a whale*.

There is another aspect to this problem: what should we do if we find that speakers of a language differ in their understanding of what a word means? Whose knowledge should we pick as our 'meaning'? We might avoid the decision by picking just one speaker and limiting our semantic description to an **idiolect**, the technical term for an individual's language. Another strategy to resolve differences might be to identify experts and use their

knowledge, but as we shall see, moving away from ordinary speakers to use a scientific definition for words has the danger of making semantics equivalent to all of science. It also ignores the fact that most of us seem to understand each other talking about, say, animals without any training in zoology. This is a point we will come back to in chapter 2.

A third type of challenge facing us comes from looking at what particular utterances mean in context. For example: if someone says to you *Marvellous weather you have here in Ireland*, you might interpret it differently on a cloudless sunny day than when the rain is pouring down. Similarly *He's dying* might mean one thing when said of a terminally ill patient, and another as a comment watching a stand-up comedian failing to get laughs. Or again: *It's getting late* if said to a friend at a party might be used to mean *Let's leave*. The problem here is that if features of context are part of an utterance's meaning then how can we include them in our definitions? For a start, the number of possible situations, and therefore of interpretations, is enormous if not infinite. It doesn't seem likely that we could fit all the relevant information into our definitions.

These three issues – circularity; the question of whether linguistic knowledge is different from general knowledge; and the problem of the contribution of context to meaning – show that our definitions theory is too simple to do the job we want. Semantic analysis must be more complicated than attaching definitions to linguistic expressions. As we shall see in the rest of this book, semanticists have proposed a number of strategies for improving on this initial position. In the next section we discuss some initial ideas that will enable us to follow these strategies.

1.4   Meeting the Challenges

In most current linguistic theories, semantic analysis is as important a part of the linguist's job as, say, phonological analysis. Theories differ on details of the relationship between semantics and other levels of analysis like syntax and morphology, but all seem to agree that linguistic analysis is incomplete without semantics. We need, it seems, to establish a semantic component in our theories. We have to ask: how can we meet the three challenges outlined in the last section? Clearly we have to replace a simple theory of definitions with a theory that successfully solves these problems.

One of the aims of this book is to show how various theories have sought to provide solutions to these problems and we will return to them in detail over subsequent chapters. For now we will simply mention possible strategies which we will see fleshed out later. To cope with the problem of circularity, one solution is to design a semantic **metalanguage** with which to describe the semantic units and rules of all languages. We use metalanguage here with its usual meaning in linguistics: the tool of description. So in a grammar of Arabic written in French, Arabic is the *object language* and

French the *metalanguage*. An ideal metalanguage would be neutral with respect to any natural languages, i.e. would not be unconsciously biased towards English, French, etc. Moreover it should satisfy scientific criteria of clarity, economy, consistency, etc. We will see various proposals for such a metalanguage, for example to represent word meanings and the semantic relations between words, in chapters 9 and 10. We will also meet claims that such a metalanguage is unattainable and that the best policy is to use ordinary language to describe meaning.

For some linguists, though, translation into even a perfect metalanguage would not be a satisfactory semantic description. Such a line of reasoning goes like this: if words are symbols they have to relate to something; otherwise what are they symbols of? In this view, to give the semantics of words we have to ground them in something non-linguistic. In chapter 2 we will review the debate about whether the things that words signify are real objects in the world or thoughts.

Setting up a metalanguage might help too with the problem of relating semantic and encyclopaedic knowledge, since designing meaning representations, for example for words, involves arguing about which elements of knowledge should be included. To return to our earlier example of *whale*: we assume that English speakers can use this word because they know what it means. The knowledge a speaker has of the meaning of words is often compared to a mental **lexicon** or dictionary. Yet if we open a real dictionary at the entry for *whale*, the definition is likely to begin 'large marine mammal . . .'. To rephrase our earlier question: does it follow that someone who doesn't know that whales are mammals fails to understand the meaning of the word *whale*? What if the speaker knows that it is a large animal that lives in the sea, but is hazy after that? The real issue is the amount of knowledge that it is necessary to know in order to use a word. We shall see aspects of this debate, which is really part of the general psychological debate about the representation of concepts and categories, in chapters 2, 3 and 7.

In tackling the third problem, of context, one traditional solution has been to assume a split in an expression's meaning between the local contextual effects and a context-free element of meaning, which we might call **conventional** or **literal** meaning. We could perhaps try to limit our definitions to the literal part of meaning and deal with contextual features separately. As we shall see in chapter 3 though, it turns out to be no easy task to isolate the meaning of a word from any possible context. We discuss some aspects of this idea of literal meaning in 1.6.3 below. The other side of such an approach is to investigate the role of contextual information in communication, and try to establish theories of how speakers amalgamate knowledge of context with linguistic knowledge. As we shall see in chapter 7, it seems that speakers and hearers cooperate in using various types of contextual information. Investigating this leads us to a view of the listener's role which is quite different from the simple, but common, analogy of decoding a coded message. We shall see that listeners have a very active role, using what has been said, together with background knowledge, to make inferences

about what the speaker meant. The study of these processes and the role in them of context is often assigned to a special area of study called **pragmatics**. We discuss the relationship between semantics and pragmatics in 1.6.4 below. We shall see instances of the role of context in meaning throughout this book and this will give us the opportunity to review the division of labour between semantics and this newer field of pragmatics.[4]

Each of these strategies will be investigated in later chapters of this book: the creation of semantic metalanguages, the modelling of conceptual knowledge, the theory of literal language, and factoring out context into pragmatics. Meanwhile in the next section we look at how semantics might fit into a model of language.

1.5   Semantics in a Model of Grammar

1.5.1   Introduction

As has been suggested already, for many linguists the aim of doing semantics is to set up a component of the grammar which will parallel other components like syntax or phonology. Linguists like to draw flowchart style diagrams of grammatical models, and in many of them there is a box labelled 'semantics', as in figure 1.1. Before we go on, it might be worthwhile to consider whether it is justified to view semantics as a component equal and parallel to, say, syntax.

We saw earlier that linguists identify different levels of analysis. Another way of describing this is to say that linguistic knowledge forms distinct **modules**, or is **modularized**. As a result, many linguistic theories are themselves modularized, having something like our boxes in figure 1.1. Our question, though, remains: what kind of module is semantics? The answer varies from theory to theory. The real problem is of course that units at all linguistic levels serve as part of the general enterprise: to communicate meaning. This means that, in at least one sense, meaning is a product of all linguistic levels. Changing one phoneme for another, one verb ending for another, or one word order for another will produce differences of meaning. This view leads some writers to believe that meaning cannot be identified as a separate level, autonomous from the study of other levels of grammar. A strong version of this view is associated with the theory known as **cognitive grammar**, advocated by linguists such as Ronald Langacker (e.g. Langacker 2002);[5] see, for example, this claim from a collection of articles:

Figure 1.1   Components of grammar

sound ↔ PHONOLOGY ↔ SYNTAX ↔ SEMANTICS ↔ thought
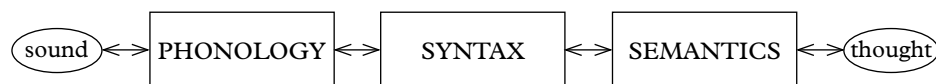
1.12   the various autonomy theses and dichotomies proposed in the lin-
        guistic literature have to be abandoned: a strict separation of syntax,
        morphology and lexicon is untenable; furthermore it is impossible
        to separate linguistic knowledge from extra-linguistic knowledge.
        (Rudzka-Ostyn 1993: 2)

As we shall see in the course of this book, however, many other linguists
do see some utility in maintaining both types of distinction referred to
above: between linguistic and non-linguistic knowledge; and within linguistic
knowledge, identifying distinct modules for knowledge about pronunciation,
grammar and meaning.

1.5.2   Word meaning and sentence meaning

If an independent component of semantics is identified, one central issue is
the relationship between word meaning and sentence meaning. Knowing a
language, especially one's native language, involves knowing thousands of
words. As mentioned earlier, we can call the mental store of these words a
lexicon, making an overt parallel with the lists of words and meanings
published as dictionaries. We can imagine the mental lexicon as a large but
finite body of knowledge, part of which must be semantic. This lexicon is
not completely static because we are continually learning and forgetting
words. It is clear though that at any one time we hold a large amount of
semantic knowledge in memory.
    Phrases and sentences also have meaning of course, but an important dif-
ference between word meaning on the one hand and phrase and sentence
meaning on the other concerns **productivity**. It is always possible to create
new words, but this is a relatively infrequent occurrence. On the other hand,
speakers regularly create sentences that they have never used or heard before,
confident that their audience will understand them. Noam Chomsky in par-
ticular has commented on the creativity of sentence formation (for example
Chomsky 1965: 7–9). It is one of generative grammar's most important
insights that a relatively small number of combinatory rules may allow speakers
to use a finite set of words to create a very large, perhaps infinite, number
of sentences. To allow this the rules for sentence formation must be **recursive**,
allowing repetitive embedding or coordination of syntactic categories. To
give a simple example, a compositional rule like 1.13 below, where elements
in parentheses are optional and the asterisk means the optional group is
repeatable, will allow potentially limitless expansions of S, as in 1.14:

1.13   S → [$_S$ S (and S)*]

1.14   a. [$_S$ S and S]
        b. [$_S$ S and S and S]
        c. [$_S$ S and S and S and S] etc.