Part IV

Meaning and context
1 Introduction

From a certain traditional perspective the distinction between semantics and pragmatics is clear. Semantics is the study of the literal meaning encoded by correctly constructed sentences in a language. Pragmatics, on the other hand, is the study of the role of language in social action, in particular how communication is reliant on mutual understanding of intentions, goals and social relationships. This view of pragmatics covers a wide range of lines of enquiry, including those concerned with the impacts of linguistic communication on participants like Austin’s (1975) Speech Act Semantics and Habermas’s (1979) Universal Pragmatics. Other orthogonal forms of enquiry such as anthropological linguistics and sociolinguistics investigate the role of language in mediating and constructing cultural and social practices. However, debates about the relations and boundary between semantics and pragmatics have been a lively part of the literature for several decades. Interest in the topic quickened in linguistics in particular in the 1970s, spurred on by work in a number of areas. One was the empirical work by linguists on the nature of presupposition, for example Jackendoff (1972), Karttunen (1974) and Kempson (1975). A speaker’s choice of lexical items or syntactic structures was seen to relate to their judgements about knowledge shared with their interlocutors. The question arose of how syntactic and semantic rules could incorporate non-linguistic contextual factors like whether information was currently considered known, new or in focus. The question was whether presuppositions are to be seen as properties of sentences, utterances or speakers. A related line of enquiry investigated the distinction between ambiguity and vagueness or under-determination, especially in how negation works in language (Zwicky and Sadock 1975; Atlas 1977; Kempson 1979). Perhaps the most influential impetus came from Grice’s (1975, 1978) investigation of how a speaker’s intended meaning may be more than or different from the literal meaning of an uttered sentence. Grice’s theory of implicatures requires a proposition derived from what is said in order to trigger the inferences to get to the speaker’s intended meaning. This propositional content was for Grice the semantic content of the utterance. The problem, as it emerged over successive years of enquiry, is that there is not only a gap between the propositions expressed and what the speaker means by them but also a gap between the form of the utterance and the propositions that might be expressed by or derivable from it. While there is far from consensus on the exact nature or form of propositions (Soames 2012), it is assumed that they have truth-conditions and so may participate in inference and reasoning generally. They are viewed as having psychological validity (Kintsch 1998) and many scholars assign them a key role in cognition and communication. The issue for linguistics is: how are they produced? If there need to be processes of fleshing out between the
linguistic form of an utterance with its conventional meanings and the resulting propositions, are these semantic or pragmatic processes? This has been one of the key areas of frontier dispute and we look at the debate in more detail.

Our discussion will concentrate on the view from linguistics. Semantics, as part of the study of language, belongs to everyone and is of concern to a wide range of neighbouring disciplines, including of course philosophy, psychology and informatics. Modern linguistics has been particularly open to influences from philosophy and much of the debate about the relations between semantics and pragmatics has reflected ideas from the philosophy of language. Often there is no clear disciplinary distinction in the discussions. To keep within reasonable bounds we concentrate on issues that currently loom largest from the linguistics side of the fence.

2 Grice’s conversational implicature

Within contemporary linguistics debate about the relation between pragmatics and semantics has been strongly influenced by Grice’s (1975, 1978, 1989) distinction between “what is said” in an utterance and what a speaker means by an utterance. This is often characterised (see for example Carston (2004)) as a distinction between “what is said” as propositional, or truth-conditional, content, and what is intentionally implied by the speaker’s utterance. Grice was not concerned to provide a tight definition of this notion of “what is said”, but in addition to following the grammatical and semantic rules of the language his discussions of the derivation of this level of meaning include fixing reference, assigning values to deictic expressions and resolving ambiguous expressions (Grice 1975). A speaker’s intended meaning may be more than “what is said” because of the intended communication of conversational implicatures: implications that are not part of the conventional meaning of the utterance, as in a typical (invented) example (1):

(1) A: Would you like another drink?
   B: I’ve an early start in the morning.

Here B’s reply may in the right context be interpreted to implicate a refusal or simply “no”.

Grice’s work suggests the following distinction between semantics and pragmatics: semantics is concerned with the proposition expressed while pragmatics is concerned with the implicatures of the utterance. His assumptions about semantics reflect the dominance in twentieth-century linguistics of truth-conditional and formal approaches. The twentieth-century philosophical analysis of language placed propositions and their truth-conditions centre stage in the search for semantic content. Grice’s work builds on this to open up the prospect of an inferential pragmatics that explores the gap between the semantic content of the speaker’s utterance, when viewed analytically, and what listeners seem to understand as the speaker’s meaning. Pragmatic processing relies on the predictability of inferential behaviour, seen by Grice as depending on cooperative principles underlying communication (Grice 1975, 1978). His cooperative principle in (2) and maxims in (3) below predict that the listener assumes, and the speaker relies on this, that the speaker is speaking truthfully, relevantly and appropriately, including assessing what the hearer knows, selecting the right degree of clarity, etc. Clearly this not a claim that speakers always behave in this way; rather it is a claim that inferential strategies seem to rely on such assumptions.

(2) Grice’s Cooperative Principle (see Grice (1989: 26))
   “Make your contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged.”
Grice’s maxims (see Grice (1989: 26–6))

i  The Maxim of Quality
   Try to make your contribution one that is true, i.e.
   a  do not say what you believe is false
   b  do not say that for which you lack adequate evidence.

ii The Maxim of Quantity
   Make your contribution as informative as is required for the current purposes of the
   exchange (i.e. not more or less informative).

iii The Maxim of Relation
   Make your contributions relevant.

iv The Maxim of Manner
   Be perspicuous, and specifically:
   a  avoid ambiguity
   b  avoid obscurity
   c  be brief
   d  be orderly.

Grice suggested that conversational implicatures must be capable of being worked out, i.e. a
reasoning process must be identifiable, even if it is not deduction. For every implicature one
should be able to predict a process of calculation involving “what is said” (the literal meaning),
the cooperative principle and context. A characteristic Gricean formulation is:

(4) “Working out schema for conversational implicatures
   a  The speaker (S) has said that p.
   b  There is no reason to think that S is not observing the maxims.
   c  S could not be doing this unless he thought that q.
   d  S knows (and knows that the hearer (H) knows that he knows) that H can see that
      he thinks that the supposition that he thinks q is required.
   e  S has done nothing to stop H from thinking that q.
   f  S intends H to think, or is at least willing to allow H to think, that q.
   g  And so, S has implicated that q.” (Grice 1975)

Grice used the term non-natural meaning (meaning_{nn}) for interactional communication
between mutually aware participants to distinguish it from simpler forms of signification.
He provided an initial characterisation of this as below:

(5) Grice’s Meaning_{nn} (Levinson 2000: 13)
Though Grice never quite puts it in these terms, the distinction in (5) between “what is said” and “what is implicated” might be taken to reflect the Gricean division between semantics and pragmatics, since “what is said” is presumably the truth-conditional content. That is, the distinction between what is said and what is implicated corresponds to the line drawn between truth-conditional and non-truth-conditional meaning. The notion of conventional implicature has proved problematic in subsequent work: for many there is something intuitively odd about expressions that have conventional, learned meanings but which are understood by inference. An example often used is English *but*, which as shown below in addition to linking clauses consistently carries a meaning of unexpectedness or contrast:

(6)  
   a. He’s a politician but he’s honest.  
   b. Jack Sprat is thin but his wife is fat.  
   c. But you know I’m allergic to shellfish!

Despite this degree of conventionality, the contrastive meaning of *but* is excluded from “what is said” because the difference between it and *and* does not affect the truth-conditions of the proposition expressed. Subsequent work in this general framework has found ways to re-analyse these effects (Bach 1999; Blakemore 2002).

The pragmatic inferences called conversational implicatures are claimed to have specific features, for example being non-conventional, cancellable and reinforceable. Non-conventionality captures the fact that the inference is not encoded in the linguistic form of the utterance, as is clear from examples like (1) earlier, where there are a number of ways in which the reply in (1) could have been expressed to communicate the same indirect response. They are cancellable by context or by explicit statement, as we can see in (7) below. The sentence (7a) when uttered would carry for Grice an implicature of temporal sequence that is then cancelled in (7b) without causing anomaly:

(7)  
   a. I go to work, come home and have a beer.  
   b. I go to work, come home and have a beer, but not necessarily in that order.

This contrasts with a semantic relation like entailment as shown in (8). The sentence (8a) has the entailment in (8b), assuming constancy of reference; and (8c) shows that cancelling it produces anomaly:

(8)  
   a. The president was assassinated yesterday.  
   b. The president is dead.  
   c. The president was assassinated yesterday but he’s not dead.

Gricean implicatures are reinforceable without causing redundancy, so the sentence (9a) may carry the implicature in (9b) and explicitly stating this does not cause redundancy in (9c).

(9)  
   a. Some of my friends are anarchists.  
   b. Not all of my friends are anarchists.  
   c. Some of my friends are anarchists but not all of them.

Once again this contrasts with entailment where the sentence *The president was assassinated yesterday and he is dead* seems to involve redundancy.
To complete the Gricean taxonomy in (5): particularised conversational implicatures (PCIs) depend completely on specific context of utterance: they are one-off inferences. Generalised conversational implicatures (GCIs) are context dependent but range over contexts, like a default. They only fail if blocked by inconsistency with context. Carston (2004), following Levinson (2000), provides the following example to illustrate the difference:

(10) A: Did the children’s summer camp go well?
    B: Some of them got stomach ‘flu.
    \textit{GCI:} Not all the children got stomach ‘flu.
    \textit{PCI:} The summer camp didn’t go as well as hoped.

3 Detaching sentence meaning from truth-conditions

Bach (1994) develops a version of Grice’s approach that also distinguishes between sentence meaning on the one hand and utterance meaning on the other, where the latter is what a speaker means by uttering a sentence. In this view sentence meaning is only part of the evidence for utterance meaning. A speaker may use a sentence figuratively to communicate a different meaning or may intend to produce indirect meanings by inference on the part of the addressee. The sentence may or may not express a proposition even when relativised to context by the resolution of deictic elements. The uttered sentences may be less than explicit because they are incomplete and, in this view, cannot express a proposition, as in (11) where “fast enough for what?” is left unexpressed:

(11) John isn’t fast enough.

In other cases the sentence may express a proposition but needs to be expanded to express what the speaker really intended. Bach (1994: 267) gives the example (12) below, where (12a) is said by a mother comforting a child with a cut finger; (12b) is the content of (12a), the basic proposition, and (12c) is the expanded and intended content:

(12) a You are not going to die, Peter.
    b There is no future time at which you will die, Peter.
    c You are not going to die from this cut, Peter.

For Bach in both (11) and (12a) the speaker is not being fully explicit. In recognising that the semantic representation is incomplete in truth-conditional terms, Bach abandons the view that the semantic content of a sentence must be a truth-bearing proposition. The expansion of sentences to make them more explicit, and thus propositional, forms a level of what he terms \textit{implicitures} to distinguish them from implicatures. These implicitures are then neither a part of the semantics of the uttered sentence nor conversational implicatures but a middle level of meaning that belongs to pragmatics. Semantics in this view then is the purely linguistic study of sentence meaning, regardless of whether the product can bear truth-conditions. Pragmatics, on the other hand, is the study of utterance meaning, involving the production of implicitures and implicatures.
4 The growth of contextualism

4.1 Neo-Gricean theories

Other writers in the broadly Gricean enterprise have further developed the view, known as contextualism, that substantial context-dependent processes are necessary to arrive at “what is said” as opposed to “what is implicated”. This enquiry is characterised by revisions of Grice’s original maxims and by an ongoing debate about the relationship between linguistic form and pragmatic processes. Along the way different characterisations of the interface between semantics and pragmatics emerge. Horn (1984, 1989, 2004), for example, argues for a reworking of the Gricean maxims into two basic pragmatic principles, briefly outlined below:

(13) Horn’s Q- and R-principles (Horn 1984, 1989)
   a The Q-principle
      Make your contribution sufficient;
      Say as much as you can (given the R-principle)
   b The R-principle
      Make your contribution necessary;
      Say no more than you must (given the Q-principle)

Horn’s Q-principle conflates Grice’s Quantity maxim and parts 1 and 2 of Grice’s Manner maxims and can basically be paraphrased as “say the most that you are licensed to say”. Alternatively, taking the hearer’s point of view in mind, it could be paraphrased as “maximise the informational content of what you say”. On the other hand, the R-principle is a speaker-oriented economy principle. The two, speaker versus hearer economy principles, are held to be in tension. The best-known application of the Q-principle is the Q or Horn scales of strength, which are designed to account for the generalised conversational implicatures produced by some linguistic expressions. They are shown schematically below:

(14) Q scale/Horn scale (Huang 2007: 38)
   For <S, W> to form a Q or Horn scale,
   i A(S) entails A(W) for some arbitrary sentence frame A:
   ii S and W are equally lexicalised, of the same word class, and from the same register;
   iii S and W are “about” the same semantic relation, or from the same semantic field.

Thus Horn scales are typically scales of alternates, ordered strong to weak, for example:

(15) a <all, some>
    b <identical, similar>

The Q-maxim operating on scales ensures that the use of a weaker alternate implies the negative of a stronger:

(16) a “Some of the audience paid for their tickets” implicates “not all did”
    b “Their answers were similar” implicates “Their answers were not identical”
Levinson (2000) proposes a similar but distinct revision where Grice’s conversational maxims are replaced by three pragmatic principles governing pragmatic inferences, called heuristics: the Q-, I- and M-heuristics. The Q-heuristic, which corresponds to Grice’s Maxim of Quantity 1, can be described either from the point of view of the speaker or the addresses, and is given in simplified form below:

(17) Levinson’s Q-heuristic (Huang 2007: 41)
Speaker: Do not say less than is required (bearing in mind the I-principle)
Addressee: What is not said is not the case.

Levinson’s I- and M-heuristics concern economy. His I-heuristic, which corresponds to Grice’s Maxim of Quantity 2, is in (18) and the countervailing M-heuristic is in (19):

(18) Levinson’s I-heuristic
Speaker: Do not say more than is required (bearing in mind the Q-heuristic)
Addressee: What is said simply is meant to be interpreted stereotypically.

(19) Levinson’s M-heuristic
Speaker: Do not use an unusual expression without reason.
Addressee: What is said in an unusual way signals an unusual situation.

The Q-heuristic, like Horn’s Q-principle, gives rise to scales. In addition to the simple scales as in (15) above, Levinson identifies more complex cases of alternate sets, for example clausal sets, where the alternates are distinguished by the stronger entailing its subparts and the weaker not entailing its components, as in (20):

(20) Example of Levinson Q_{clausal}-conditionals
a  <since $p$ then $q$>, <if $p$ then $q$>
  b  “Since he’s here, he can play” entails “He is here”; and “He can play”
  c  “If he’s here, he can play” does not entail “He is here” or “He can play”

In this example, “since $p$ then $q$” entails $p$, and entails $q$, as shown in (20b). However, “if $p$ then $q$” does not entail $p$, and does not entail $q$, as shown in (20c). Because of this relationship, by uttering “If he’s here, he can play” the speaker, by excluding the stronger, implicates: “Maybe he’s here; maybe not; therefore maybe he can play; maybe not” i.e. uncertainty. The I-heuristic is used to explain the how speakers employ or assume defaults and stereotypes to narrow to specific interpretations so that a cheese board is for cutting cheese, not made of cheese, and a kitchen knife is used in kitchens, not for cutting kitchens. It is also used for the examples of strengthening implications mentioned earlier, for example the occasion when conjunctions like English and can imply temporal and causal sequence as in (21); if is strengthened to be interpreted as “if and only if” as in (22): and the strengthening of negation as when (23a) implicates (23b):

(21) They ran out of the bank and the police opened fire.
(22) If you pass your examinations, I’ll buy you a car.
(23) a John doesn’t like sushi.
   b John dislikes sushi.
The M-heuristic explains speakers’ use of unusual expressions to avoid defaults and stereotypes. It seeks to account for the pragmatic effects of negative asymmetry, where (24a) below will be interpreted differently from (24b); or where the use of a periphrastic expression carries a distinction of meaning as in (25):

(24)  
   a. I don’t dislike Henry.  
   b. I like Henry.

(25)  
   a. Mandy fired the gun.  
   b. Mandy caused the gun to fire.

An important part of Levinson’s (2000) proposal is the elaboration of Grice’s generalised conversational implicatures as defaults triggered by linguistic structure. Levinson identifies three levels at the semantics-pragmatics interface: sentence meaning (semantics proper), utterance-type meaning (defaults) and utterance-token meaning (produced by pragmatic inference). The defaults are defeasible (i.e. cancellable) pragmatic inferences, which are seen as part of a wider class of presumptive meanings or preferred interpretations. They are not produced as one-off contextual inferences but are enrichments of the semantic representation automatically triggered by linguistic forms. They serve to determine the proposition expressed in a number of ways, including the kind of lexical narrowing and strengthening outlined above. These defaults form an independent level between semantics and pragmatics but that interfaces with both.

In Levinson’s account the default inferences will only be subsequently cancelled if they clash with context. As we noted, Grice’s original position seemed to assume that reference resolution, the determination of deictic elements and disambiguation are necessary to determine “what is said”. Levinson (2000) proposes to add defaults to this so that there is a level of semantic representation that is even more clearly dependent on pragmatic processes, even if these are unconscious and automatic. This level then gives rise to conversational implicatures produced by conscious inference. So although in this view implicature straddles the division between what is said and what is implied, and in traditional terms the semantics/pragmatics border, the old border is still there in a sense in the division between the types of pragmatic process involved. In fact Levinson discusses a more complicated interaction involving interleaving of levels, because of examples like (26) and (27) below, where the truth-conditional operations of the conditional and comparison only work if the pragmatic default (or GCI) is part of the meaning:

(26) If they got married and had a child, their parents will be pleased, but if they had a child and got married their parents will not be pleased. (and implicates then)

(27) It is better to eat some of the cake than it is to eat it all. (some implicates not all)

In this view a pragmatic process inferentially enriches the underdetermined aspects of the semantic representation on the basis of the default assumptions given by the heuristics (a pragmatic level 1). Then the semantics provides semantic interpretations that will determine truth-conditions, entailments and other classic semantic relations. Subsequently this enriched semantic representation gives rise to particularised conversational implicatures (a pragmatic level 2). Levinson describes this interleaving of levels as pragmatic intrusion or, alternatively, presemantic and postsemantic pragmatics.
4.2 Relevance theory

A more radical departure in the Gricean tradition is provided by Relevance Theory (Sperber and Wilson 1995; Carston 2002; Wilson and Sperber 2012), which situates its account of the inferential interpretation of meaning within a psychologically oriented model of communication based on relevance (see Chapter 11). Relevance is, as a property of both cognition and communication, characterised as two principles:

    Human cognition tends to be geared towards the maximisation of relevance.

(29) Communicative Principle of Relevance (Sperber and Wilson 1995: 158)
    Every act of overt communication conveys a presumption of its own optimal relevance.

The cognitive principle proposes that a characteristic of human cognition is to seek to achieve as many cognitive effects as possible for as little processing cost as possible. The communicative principle claims that making an utterance communicates a kind of guarantee: that the utterance is relevant enough to be worth the addressee’s effort to process it and is moreover the most relevant one the speaker could make in the circumstances. Relevance is gauged by the effects on the cognitive environment of the addressee in the specific context; that is, by various modifications to the addressee’s knowledge or beliefs. Clearly the effects will vary from one context to another. If the principles license the inferential behaviour of hearers, the balance between contextual cognitive effects and processing effort acts as a limit to the inferential process. This account then switches the behavioural basis of communication from Grice’s principles of language usage (possibly learned by speakers) to unconscious psychological principles wider than language.

Relevance theorists share with other contextualist accounts the view that linguistic form underdetermines meaning and that contextual processes are required to enrich the semantic output from linguistic rules towards a propositional status. However, this approach is characterised by the view that the same relevance-based inferential process is employed both to enrich the underspecified semantic forms and to derive conversational implicatures from richer propositional representations (see Chapter 11). The linguistic rules of a language produce semantic representations that are too sketchy to support propositions, and presumably to register in consciousness. Relevance theorists recognise a range of processes including disambiguation, reference assignment and enrichment that allow the formulation of more compete representations from these underdetermined schemas. Richer representations that support truth-conditional propositional meaning are called explicatures. Clear cases of enrichment involve ellipsis and sentence fragments. In the exchange below, in a reasonable context, A might reconstruct (31) from the exchange in (30):

(30) A: Who stole the armadillo?
    B: Roger.

(31) Roger stole the armadillo.

This seems a straightforward case of the contextually most accessible information being used to fill gaps in the linguistic input. But relevance theorists propose that similar processes allow listeners to enrich the linguistic input for unexpressed information about time, sequence and causation, among other semantic parameters. Wilson and Sperber (2012: 179) discuss their now well-known examples:
I have had breakfast.
I have been to Tibet.

All that’s available from the linguistic input is that the speaker has had breakfast, or been to Tibet, at some point in time before the utterance. In practice, the presumption of relevance will lead the listener not to assume that (32) is intended to communicate that the speaker has had breakfast at some time in her life, but to try to construe it as maximally relevant, i.e. that she has had food recently enough for it to be worth mentioning, i.e. recently enough not to need to eat breakfast again. Note that this assumes a kind of reasonable context: it is quite possible for (32) to be used in another context to communicate that the speaker has eaten breakfast at some time in her life. For (33) we can imagine a situation where the relevant time frame might be the speaker’s lifetime.

Similar processes are held to explain the sequential and causal interpretations constructible for connectives like and seen above, for example:

“It’s always the same at parties: either you get drunk and no one will talk to you or no one will talk to you and you get drunk.” (Blakemore 1992: 80)

Thus the neo-Gricean category of generalised conversational implicatures forms in this account part of the explicatures of the utterance.

The explicatures created by enriching a linguistically encoded semantic representation may be embedded under markers of the speaker’s stance that do not affect the truth-conditions of the proposition. An example is illocutionary adverbs such as seriously, frankly, etc. that modify the type of speech act performed, as in (35):

Confidentially, he’s a bit of a crook.
Frankly, I don’t know the answer.
Seriously, we have to get out of here.

These are said to form higher-level explicatures of the utterance. Explicatures as propositional representations give rise to contextual effects, i.e. implicatures of various types, which represent non-truth-conditional intended meaning.

Relevance Theory thus situates the border between semantics and pragmatics at the border between linguistically encoded meaning on the one hand and what is explicated and implicated on the other. Or to put it another way: semantics is concerned with decoded linguistic meaning and pragmatics with inferential meaning. Consequently pragmatic processes are clearly required to obtain propositional truth-conditional representations. A recent focus has been the application of this approach to word meaning as part of supplementing lexical semantics with a lexical pragmatics (see Chapter 11).

4.3 Recanati’s truth-conditional pragmatics

Recanati (e.g. 2010) proposes a strong version of the contextualist position that a truth-conditional “what is said” is always produced by pragmatic processes. In this account these processes are different in kind from the inferences that produce implicatures, being more automatic and unconscious. They include linguistically triggered saturation, where reference is fixed and deictic elements are assigned values, and free enrichment, which is not linguistically triggered and which makes more explicit some unexpressed information. A typical
example is (36) where the intended referent of she is fixed by saturation and a causal and
temporal relation may be understood, depending on context, by enrichment.

(36) She went to MIT and studied linguistics.

Recanati views the unexpressed comparators of an adjective like tall in (37) or the under-
stood information ready for what in (38) as examples of saturation:

(37) Your son is tall.
(38) Sonja is ready.

In this view saturation produces a proposition, or conversely, omitting this process would
result in an open sentence unable to support truth-values. Free enrichment is optional but
unlike the inferences that produce implicature does affect truth-conditions. The result is an
augmented proposition. In Recanati’s view saturation is a “bottom-up” process since it is
motivated by the linguistic form while enrichment is a “top-down” process since it is
motivated by the hearer’s desire to create an interpretation of the speaker’s meaning. Free
enrichment is part of a more general process of modulation, which is the contextual localisa-
trion or grounding of the context-independent meaning of expressions. In Recanati’s view
free (as in not linguistically constrained) pragmatic enrichment to propositional content is an
all-pervasive feature of language that enables a limited resource to be adapted to a very large
number of situations.

5 Restricting context

A number of proposals, in particular from philosophers of language, have sought to restrict
the contribution of context to truth-conditional semantic representations. One approach is to
limit the pragmatic processes leading to truth-conditional representations by insisting that
they have to be linguistically licensed by constituents of the sentence itself. These would
include deictic elements like pronouns, demonstratives, and temporal and locational adverbs.
In short, to use Recanati’s terms discussed above, this is to include saturation in semantics
but to exclude free enrichment and other forms of modulation. The result is a conservative
contextualism that is characterised, for example, by Cappelen and Lepore (2005). In this
view the utterance of a sentence produces a basic proposition that is produced across all
contexts it is uttered in, with other different propositions being derived from it that will vary
from context to context, depending on pragmatic processes. Thus there are two levels of
meaning: a minimal semantic content that is propositional and a richer contextualised speech
act content.

Borg (2004, 2007) argues for a similar position, Minimal Semantics, where a minimal
proposition is provided by semantics and then supplemented by intuitive utterance content,
given by pragmatics. Sentences in this view have truth-conditions even if a speaker cannot
tell for any given situations whether they are true. The mapping between an uttered sentence
and a real-life situation is in this account a process of verification of truth-conditions rather
than the formal semantic assignment of truth-conditions to a sentence. As part of her aim of
“capturing the repeatable, code-like, normative aspects of linguistic meaning” (2004: 310)
Borg proposes that semantic representations are derived by formal computational opera-
tions alone, with no reference to “subjective” parameters such as speaker intentions, goals,
etc., while pragmatic content on the other hand can have access to non-formal, abductive
processes. Borg proposes minimal propositions that will neither be typically communicated nor necessarily psychologically accessible to speakers and hearers, as with the proposition (39b) suggested as produced by the (uttered) sentence (39a) (2004: 228):

(39)  
a. Jill can’t continue.

b. Jill can’t continue something.

It is unlikely that the hearer will understand (39b) as the communicated meaning, but this objection has little bite if propositions are not readily mentally accessible. Atlas (2011), among others, has objected to the truth-conditional implications of asserting the existence of “something” in the truth-conditions in (39b).

Since relevance theorists assume a very reduced semantic representation produced by the grammar, the difference between Borg’s position and theirs may be less dramatic than that suggested by the contextualist-minimalist debate. The difference comes down to how minimal the semantic representation is. Relevance theorists propose a sub-propositional schema from which pragmatics allows the derivation of propositions. Borg proposes a minimal proposition that will often not correspond to the proposition expressed by the speaker. This point is made Wedgwood (2007) in his comparison between Cappelen and Lepore (2005) and Relevance Theory. From this angle relevance theorists might be characterised as “radical semantic minimalists”.

6 Dynamic semantics

There is a tendency in the approaches discussed so far to follow the philosophical tradition of viewing sentences as static, independent constructs that are individually mapped to semantic forms. Much of language structure, however, reveals that sentences naturally form part of larger structures that are produced through an interactive process among speakers. Speakers use pronouns, for example, to link references to entities between sentences and between sentences and the context. These links shift as the conversation progresses and new entities are talked about. Speakers often use elliptical or partial forms, relying on their hearers’ ability to supply the missing elements. A number of formal approaches have been developed to capture the dynamic nature of language, including File-change Semantics (Heim 1983), Dynamic Predicate Logic (Groenendijk and Stokhof 1991), Update Semantics (Veltman 1996), and Discourse Representation Theory (Kamp et al. 2011). These approaches have sought to formalise a process of updating information states, as a model of communicated assumptions about context. Discourse Representation Theory (DRT), for example, provides a formal model of the introduction and tracking of reference to entities in discourse by, for example, indefinite noun phrases and pronouns (see also Chapters 3 and 4). In this account a sentence’s meaning is characterised as an update operation on a context rather than directly as a set of truth-conditions. Each sentence is interpreted in a context with the result being a new context. DRT formalises at least two aspects of the discourse context: the referential discourse history of entities and the related presuppositions. In treating semantic content as updating the discourse context, DRT merges information from across the traditional semantics/pragmatics divide.

The main form of representation is a Discourse Representation Structure (DRS), usually presented in a box format, as shown in (41) below. The discourse referents are given in the top line of the DRS, called the universe of the DRS, and below them are conditions giving the properties of the discourse referents. These conditions govern whether the DRS can be
embedded into the model of the current state of the discourse. A DRS is true if all of the discourse referents can be mapped to individuals in the situation described in such a way that the conditions are met. These DRSs are built up by construction rules from the linguistic input, sentence by sentence. If we take the sentences in (40) as a mini-discourse, where the subscript $i$ marks co-reference, the first will be represented by the DRS in (41) and the second will update the first to create the DRS in (42):

(40) a Rotwang built a robot.
    b It was beautiful.

(41) \[
\begin{array}{c}
  x \\
  y \\
  \text{ROTWANG} (x) \\
  \text{ROBOT} (y) \\
  \text{BUILD} (x, y)
\end{array}
\]

(42) \[
\begin{array}{c}
  x \\
  y \\
  z \\
  \text{ROTWANG} (x) \\
  \text{ROBOT} (y) \\
  \text{BUILD} (x, y) \\
  z = y \\
  \text{BE BEAUTIFUL} (z)
\end{array}
\]

In this brief example the DRT account shows how an indefinite noun phrase can be used to introduce an entity (a robot) into the discourse context and how this can then be referred to by a subsequent pronoun (it). However, not all uses of an indefinite nominal introduce an entity into the context in this way, for example when the nominal occurs in a negative context:

(43) a Rotwang did not build a robot.
    b *It was beautiful.

In DRT the anomaly in (43b) is reflected by recognising that certain scope elements, such as negation, create a subordinate construction within a DRS, a sub-DRS, and specifying that elements within the sub-DRS are inaccessible to relations like anaphora. Thus the sentence (43a) is represented by the DRS (44) below:

(44) \[
\begin{array}{c}
  x \\
  \text{ROTWANG} (x) \\
  \neg \\
  y \\
  \text{ROBOT} (y) \\
  \text{BUILD} (x, y)
\end{array}
\]

Here the DRS contains one discourse referent and two conditions: the first is the usual naming relation, \text{ROTWANG} (x), and the second is a second DRS embedded in the first and marked by
the logical negation sign $\neg$. The satisfaction of this second condition is that there is not a robot such that Rotwang built it. This contained DRS is said to be subordinate to the containing DRS and is triggered by the construction rules for negation. Adding the second sentence (43b) results in the DRS in (45):

$$\begin{align*}
\text{ROTWANG (x)} \\
\neg \\
\text{ROBOT (y)} \\
\text{BUILD (x, y)} \\
\text{z = ?} \\
\text{BE BEAUTIFUL (z)}
\end{align*}$$

Here the question mark in the identification of an antecedent for $y$ (i.e. *it*) is because the only possible antecedent for $y$ (a robot) is not accessible since it occurs in the subordinate DRS box under negation. The effect of this is that discourse referents introduced within a subordinate DRS under the scope of negation do not enter the discourse context and are thus inaccessible to pronouns in subsequent stages of the DRS.

In this theory the DRSs are elaborated to explore the referential behaviour of noun phrases in a range of syntactic configurations, and under negation and quantification. Since these DRSs form a level of mental representations reflecting the hearer’s process of updating the discourse as it progresses, this theory proposes a psychologically based account of meaning interpretation as a computation over representations. As noted earlier, the integration of the (rather minimal) contextual information of the discourse itself with semantic information blurs the traditional distinction between literal meaning and pragmatics. Developments of DRT have extended the integration of discourse contextual parameters, such as Layered DRT (Maier 2009), which incorporates further presuppositional behaviour, and Segmented DRT (Asher and Lascarides 2005), which integrates rhetorical structure.

### 7 Cognitive semantics

Cognitive linguistics is a very wide field of enquiry but in general scholars in this approach reject the correspondence theory of truth, and resulting truth-conditions, as a means of representing meaning. Lakoff (1989) describes two assumptions deriving from the dominant tradition in twentieth-century philosophy of language that he believes must be rejected in a cognitive approach to language. The first is objectivism, characterised as:

$$\begin{align*}
\text{The Objectivist Commitment. The commitment to the view that reality is made up, objectively, of determinate entities with properties and relations holding among those entities at each instant. This is a commitment to a view that reality comes with a preferred description, and it is a commitment as to what reality is like. (1989: 56)}
\end{align*}$$

The second is a truth-based account of meaning that he traces back to Frege:
The Fregean Commitment. The commitment to understand meaning in terms of reference and truth, given the objectivist commitment. Semantics is taken as consisting in the relationship between symbols and the objectivist world, independent of the minds of any beings. An example would be to define meaning in terms of Tarski’s truth convention $T$, which in turn defines the truth of logical forms in terms of what their elements refer to in a set-theoretical model of the world. (1989: 56)

For Lakoff, as for other linguists in this general paradigm, these assumptions are inconsistent with a cognitive approach to language and must be replaced with a model of embodied cognition (Gibbs 2005) wherein meaning reflects conceptualisation and individual utterances reflect speakers’ choices of construal. Langacker (2008) identifies categories of construal that include specificity, focusing, prominence and perspective. Specificity reflects decisions about levels of precision and granularity. Focusing describes the selection of content for linguistic communication and its arrangement into foreground and background, including distinctions of information structure. Prominence or salience reflects decisions about the selection of a conceptual domain and attention to relations or positions within it. Perspective is the speaker’s choice of vantage point to report a scene, for example, and between alternate characterisations of temporal relations. These construal processes are inherently context dependent and so cognitive linguists view the division between semantics and pragmatics as an artefact of the mistaken assumptions in (46) and (47).

Cognitive linguists have proposed a range of conceptual structures that underpin linguistic communication, including image schemas (Johnson 1987; Lakoff 1987, 1989; Hampe 2005), frames (Fillmore 1982), idealised cognitive models (Lakoff 1987) and mental spaces (Fauconnier 1994, 1997). Image schemas are basic structures deriving from bodily experiences of vision, space, motion and forces that combine to build up richer and more abstract conceptual structures. Schemas like path, up-down and container have been used to characterise topographical concepts that underlie spatial language such as prepositions. Idealised cognitive models (ICMs) explore the implications for language of research in cognitive psychology on prototype effects in categorisation (Rosch 1973, 1975; Rosch and Mervis 1975; Rosch et al. 1976). Like frames, ICMs are higher-level conceptions that incorporate knowledge about the world. So the ICM bachelor is made up of prototypical assumptions that make the Pope an untypical bachelor. Mental spaces are mental representations that reflect aspects of dynamic discourse context. They reflect how participants manage reference to states of affairs and entities within them, for example allowing mapping between the current context of discourse and temporally distinct, hypothetical or counterfactual scenarios. All of these forms of representation reflect cognitive processes that are identified as wider than language and that incorporate information from a range of sources including bodily experience, cultural knowledge and the specific context of utterance.

This lack of distinction between encyclopaedic and linguistic knowledge characterises the cognitive linguistic approach to word meaning. In this view lexical items are conceptual categories whose cognitive function is the object of study. They form information structures that mediate the speaker’s encounters with the world (Geeraerts 1995). The meaning attached to a word is a prompt for a process of meaning construction in context. This local lexical grounding or modulation (Cruse 1986) takes account of any form of knowledge contextually available. This encyclopaedic usage-based approach moves away from the traditional analogy of a dictionary for knowledge of word meaning: a mental lexicon. Instead encyclopaedic knowledge is accessed by the use of words in context so the distinction between semantics and pragmatics has no theoretical weight (see Chapter 5).
8 Conclusion

Grice’s proposal was for a theory of pragmatics, starting where linguistic form itself leaves off. However, explorations in this paradigm have led to re-evaluation of semantics itself and its relation to pragmatics, in particular for those who seek to maintain a traditional role for truth-conditions in semantic content. Such an enterprise faces the problem that semantic content underdetermines propositional content. There are a number ways of dealing with this. One, the consensus perhaps in current linguistics, is to abandon the applicability of truth-conditions to sentences and their semantics. Truth-conditions and propositions are then only indirectly related to the output of grammar. Consequently language is part of their generation but, as Relevance Theory suggests, a wider theory of cognition and communication is required to give a full account of how speakers and hearers arrive at a communicated meaning. A conservative response, mainly from philosophers, is the attempt to limit the contextual contribution to propositions to overt linguistic triggers. This approach has the problem of finding a principled way to define such a set of triggers. Dynamic approaches like DRT place a level of mental representation between language and truth-conditions and admit contextual features into the representation. This shifts the focus of interest to the point where information of different sorts is integrated in the interpretation of meaning. For cognitive linguists, who have generally rejected the distinction between semantics and pragmatics, the growing evidence of contextual effects does not pose a problem. Scholars in this approach have long discounted the correspondence theory of truth as a basis for semantic analysis and have instead proposed cognitive representations that freely draw on all types of available knowledge. It is possible to see in this continuing debate a move within linguistics to a greater interest in the relationship between semantic and conceptual representations (see Chapter 2) and in dynamic and cognitive approaches to meaning in which the semantics/pragmatics border is not an important focus of enquiry.

Further reading

This book sets the cognitive semantics approach to lexical semantics against the background of other approaches.


This is an overview of and update on developments in Relevance Theory.

References


Related topics

Chapter 1, (Descriptive) Externalism in semantics; Chapter 2, Internalist semantics; Chapter 5, Cognitive semantics; Chapter 11, Contextual adjustment of meaning; Chapter 15, Semantic shift; Chapter 29, Semantic processing.