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Pragmatics

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PRAGMATICS

Analytic philosophers have been so concerned with language that they have made lasting contributions to its scientific study. Semantics, the study of meaning, and pragmatics, the study of language in use, are two important areas of linguistic research which owe their shape to the groundwork of philosophers.

Although the two disciplines are now conceived of as complementary, the philosophical movements out of which they grew were very much in competition. In the middle of the twentieth century, there were two opposing 'camps' within the analytic philosophy of language. The first camp — 'ideal language philosophy', as it was then called — was that of the pioneers, Frege, Russell and the logical positivists. They were, first and foremost, logicians studying formal languages and, through them, 'language' in general. Work in this tradition (especially that of Frege, Russell, Carnap, Tarski, and later Montague) gave rise to contemporary *formal semantics*, a very active discipline developed jointly by logicians, philosophers, and grammarians. The other camp was that of so-called 'ordinary language philosophers', who thought important features of natural language were not revealed, but hidden, by the logical approach initiated by Frege and Russell. They advocated a more descriptive approach and emphasized the 'pragmatic' nature of natural language as opposed to, say, the 'language' of *Principia Mathematica*. Their own work (especially that of Austin, Strawson, Grice, and the second Wittgenstein) gave rise to contemporary pragmatics, a discipline which (like formal semantics) developed successfully within linguistics in the past thirty years.

From the general conception put forward by ordinary language philosophers, four areas or topics of research emerged, which jointly constitute the core of pragmatics:

- speech acts
- indexicality and context-sensitivity
- non-truth-conditional aspects of meaning
- contextual implications

In the first half of this entry (sections 1-7) we shall look at these topics from the point of view of ordinary language philosophy itself; later sections will present the contemporary picture. From the first point of view, pragmatics is seen as an *alternative* to the truth-conditional approach to meaning associated with ideal language philosophy (and successfully pursued within formal semantics). From the second point of view, pragmatics merely *supplements* that approach.

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1 Pragmatics and ordinary language philosophy

The linguistic investigations undertaken by ordinary language philosophers in what was to become 'pragmatics' had been notably anticipated by various researchers belonging to other traditions (phenomenologists like Marty or Reinach, linguists like Bally or Gardiner, psychologists like Bühler, or anthropologists like Malinowski; for the pre-history of pragmatics, see Nerlich and Clarke 1994). However, what influenced ordinary language philosophers most was the conception of language advocated by 'ideal language philosophers', which conception they strongly reacted to.

Central in the ideal language tradition had been the equation of, or at least the close connection between, the meaning of a sentence and its truth-conditions. This truth-conditional approach to meaning, perpetuated by contemporary formal semantics, is one of the things which ordinary language philosophers found quite unpalatable. Their own emphasis was on the distinction between 'language' and 'speech' (Gardiner 1932) or, equivalently, between 'sentence' and 'statement' (Austin 1950, Strawson 1950). It is the sentence (a unit of 'language') which has meaning, according to ordinary language philosophers; whereas it is the statement made by uttering the sentence in a particular context which has truth-conditions. The sentence itself does not have truth-conditions. Truth can only be predicated of sentences indirectly, via the connections between the sentence and the speech act it can be used to perform. Rather than equating the meaning of a sentence with its alleged truth-conditions, some philosophers in the pragmatic tradition have suggested equating it with its speech act 'potential' (which may include, as a proper part, a certain truth-conditional potential; see Alston 1964: 37-9).

Suppose that we posit abstract objects, namely 'propositions', which are essentially true or false. Then the point made by ordinary language philosophers can be put by saying that sentences do not express propositions in vacuo, but only in the context of a speech act. Given that the same sentence can be used to make different speech acts with different contents, the 'proposition' which is the content of the speech act must be distinguished from the linguistic meaning of the sentence qua unit of the language ('sentence meaning'). It must also be distinguished from the contextually determined meaning of a particular utterance of the sentence ('utterance meaning'), for the latter includes much more than merely the propositional content of the speech act performed in uttering the sentence. Utterance meaning includes a rich non-truth-conditional component: Besides the proposition it expresses, an utterance conveys indications concerning the type of the speech act being performed, the attitudes of the speaker, the place of the utterance within the discourse, its presuppositions, and so forth. Moreover there is a secondary layer of meaning which includes the contextual implications of the speech act, and in particular what Paul Grice called the 'conversational implicatures' of the utterance.

2 Speech acts

Speech act theory (Austin 1975, Searle 1969) is concerned with communication — not communication in the narrow sense of transmission of information, but communication in a broader sense which includes the issuing of orders, the asking of questions, the making of apologies and promises, etc. According to the theory, a speech act is more than merely the uttering of a grammatical sentence endowed with sense and reference. To speak is also to *do* something in a fairly strong sense — it is to perform what Austin called an 'illocutionary act'. In performing an illocutionary act, a speaker takes on a certain role and assigns a corresponding role to the hearer. By giving an order, the speaker expresses his desire that the hearer follow a certain course of conduct and presents himself as having the requisite authority to oblige the hearer to follow the course of conduct in question simply because it is the speaker's will. The social role taken on by the speaker who gives an order is embodied in the organizational notion of 'superior rank'. Austin stressed such institutional embodiments of illocutionary roles in order to show that language itself is a vast institution incorporating an array of conventional roles corresponding to the range of socially recognized illocutionary acts. From this point of view, assertion, the act of making a statement, is only one illocutionary act among many others.

Illocutionary acts have 'felicity conditions' — conditions which must be contextually satisfied for the illocutionary act to be successfully performed. The act of assertion itself has felicity conditions; thus an assertion about an object 'presupposes' the existence of that object and is felicitous only if the object in question actually exists (Strawson 1950, Austin 1975). The study of felicity conditions is a central concern of speech act theory, along with the taxonomy of illocutionary acts. But the most central concern, perhaps, relates to the characterization of the very notion of an illocutionary act. Illocutionary acts are generally introduced ostensively, by examples — as I did above; and they are distinguished both from the act of merely saying something ('locutionary' act) and from the act of causing something to happen by saying something ('perlocutionary' act, e.g. frightening, convincing, etc.). The nature of the intermediate category of 'illocutionary acts' remains a matter of debate, however. The pioneers of speech act theory, Austin and Searle, advocated an institutional or conventional approach. In this framework the illocutionary acts performed in speech, like the acts that are performed in games (e.g. 'winning a set' in tennis), are governed by rules, and exist only against a background of conventions. But an alternative, 'intentionalist' view, originating from Grice (1957) and Strawson (1964), developed and is now the dominant trend in speech act theory. We shall discuss it below (section 13).

3 Contextual implications

The notion of a contextual implication itself is a speech-act theoretic notion. If, beside the meaning or content of an utterance, there is another realm, viz. that of the illocutionary act the utterance serves to perform, then along with the implications of what is said there will be a further set of implications derivable from the utterance, namely the implications of the illocutionary act itself. Some of these 'pragmatic' implications are fairly trivial. Thus, according to ordinary language philosophers, it is a rule of the language game of assertion that whoever asserts something believes what she says and has some evidence for it; even the liar, who does not obey this rule, has to pretend that she does if she wants to participate in the game. This rule generates pragmatic implications: By asserting something and therefore engaging in the language

game, the speaker 'implies' that she obeys the rules of the game and, therefore, that she believes whatever she is asserting. The speaker cannot disavow these implications of her speech act without 'pragmatic contradiction'. A pragmatic contradiction is a conflict between what an utterance says and what it pragmatically implies. Thus Moore's famous paradoxical utterance, 'It is raining but I do not believe it', is not self-contradictory in the logical sense: the state of affairs it describes is logically possible (it might be raining without the speaker's knowing it). But the speaker's asserting that it rains implies that she believes it, and this contradicts the second part of the utterance. (The twin notions of pragmatic implication and pragmatic contradiction or 'pragmatic paradox' have been used to illuminate a variety of philosophical issues, including the nature of Descartes's *cogito*.)

Less trivial are the contextual implications discussed by Grice under the label 'conversational implicatures' (Grice 1989). According to Grice, the speaker making an utterance does not merely imply that she respects the rules of the language game; among the pragmatic implications of the utterance, we find a number of additional assumptions contextually required in order to maintain the supposition that the rules of the game are being observed. Suppose that I am asked whether I will go out; I reply, 'It is raining'. As I said above, it is a rule of assertion that the assertor believes what he says and has some evidence for it. By virtue of this rule, my utterance implies that I believe that it is raining, and that I have some evidence for my assertion. Considered as an answer to a question, my utterance also implies that it provides the information requested by the addressee, for it is a rule of the Question-and-Answer language game that the answerer must provide the requested piece of information. Now in order to maintain the supposition that the speaker's utterance actually provides the requested information, additional premisses are needed, for example the assumption that the speaker will not go out if it rains. In conjunction with this contextual assumption, the utterance implies that the speaker will not go out, thereby providing a negative answer to the question. Insofar as they serve to restore the utterance's conformity to the rules of the game, the conclusion that the speaker will not go out and the contextual assumption through which it is derived are further pragmatic implications of the utterance. Grice called them 'conversational implicatures'. Contrary to the more trivial pragmatic implications, they can be disavowed by the speaker without pragmatic contradiction (at least if there is another way of making the utterance compatible with the supposition that the rules of the game are being respected). This distinguishing feature of conversational implicatures is referred to as their 'cancelability'. Implicatures which are not disavowed are legitimately taken as part of what the utterance communicates. They constitute a second layer of meaning, additional to what is literally said. According to Grice, everything which is 'meant' without being literally 'said' is a conversational implicature. This claim has been controverted (see e.g. Carston 1988), but Grice's theory of layers of meaning has proved very fruitful both in linguistics and in philosophy. Its strategic importance will be stressed below (section 12).

4 Non-truth-conditional aspects of meaning

Like pragmatic implications, non-truth-conditional aspects of meaning are easy to account for if speech is considered as a rule-governed activity (Stenius 1967). What is the meaning of, say, the imperative mood? Arguably, the sentences 'You will go to the store tomorrow at 8', 'Will you go to the store tomorrow at 8?', and 'Go to the store tomorrow at 8' describe the same (sort of) state of affairs. The difference between them is pragmatic rather than descriptive; it relates to the type of illocutionary act being performed by the utterance. Thus the imperative mood indicates that the speaker, in

uttering the sentence, performs an illocutionary act of a 'directive' type. (Such an act is governed by the rule that if the speaker performs a directive act with content P, the addressee is to make it the case that P.) To account for this 'indication', which does not belong to the utterance's descriptive or propositional content, we can posit a rule or convention to the effect that the imperative mood is to be used only if one is performing a directive type of illocutionary act. This rule gives conditions of use for the imperative mood. By virtue of this rule, a particular token of the imperative mood in an utterance **u** 'indicates' that a directive type of speech act is being performed by **u**. This (token-reflexive) indication conveyed by the token follows from the conditions of use which govern the type, which conditions of use constitute the linguistic meaning of the type (Recanati 1987: 15-7).

Pragmatic indications are a species of pragmatic implication: they are what the use of a particular expression pragmatically implies, by virtue of a certain condition of use conventionally associated with the expression. In contrast to more standard pragmatic implications, however, pragmatic indications are linguistically encoded, via the condition of use conventionally associated with the expression. Grice called such conventional pragmatic implications 'conventional implicatures', as opposed to conversational implicatures (Grice 1989). Whether they concern the type of the illocutionary act, as in the example I have given, or some other aspect of the context of utterance, pragmatic indications can always be accounted for in terms of conditions of use. They are 'use-conditional' aspects of meaning. Their exploration is one of the empirical tasks of semantics construed as the study of linguistic meaning under all its aspects. (Another, more restricted construal of 'semantics' is widespread among philosophers; see section 8 below.)

5 Indexicals

Use-conditional meaning is not incompatible with descriptive content, in the sense that one and the same expression can be endowed with both. There are expressions which have a purely use-conditional meaning and do not contribute to truth-conditional content. Illocutionary markers like the imperative mood, or discourse particles such as 'well', 'still', 'after all', 'anyway', 'therefore', 'alas', 'oh', and so forth, fall into this category. Thus the following utterances have the same truth-conditional content, and are distinguished only by the pragmatic indications they respectively convey:

Well, Peter did not show up
Still, Peter did not show up
After all, Peter did not show up
Therefore, Peter did not show up
Alas, Peter did not show up
Oh, Peter did not show up

But there are also expressions which have a two-layered meaning. Indexicals are a case in point. A *rule of use* is clearly associated with indexicals: thus 'I' is governed by a convention of use — it is to be used to refer to the speaker. By virtue of this conventional rule, a use **u** of 'I' token-reflexively indicates that it refers to the speaker of **u**. But **u** also contributes to the utterance's truth-conditional content. 'I' being a directly referential expression, its truth-conditional contribution (its 'content') is its actual referent, *not* the rule of use which contextually determines the referent (Kaplan 1989a, Recanati 1993).

Beside the horizontal distinction between truth-conditional and non-truth-conditional aspects of meaning, we see that there is a vertical distinction between two levels of meaning for indexical expressions (Strawson 1950, Kaplan 1989a). At the first level — corresponding to the linguistic meaning of the expression-type — we find the rule of use conventionally associated with the expression. At the second level — corresponding to the context-dependent semantic value of the token — the rule of use determines the expression's 'content'.

6 Levels of meaning

The two distinctions we have made, between truth-conditional and non-truth-conditional aspects of meaning on the one hand, and between levels of meaning on the other hand, should not be conflated (as they have often been). Despite appearances, they are orthogonal to each other. In the same way as the truth-conditional content of an indexical sentence is context-dependent and, therefore, belongs to the second level of meaning, the pragmatic indications conveyed by an expression governed by a rule of use also are context-dependent and belong to the second level of meaning. In other words, a distinction must be made between the rule of use (first level of meaning) and the pragmatic indications it contextually generates, in the same way as we distinguish between the rule of use and the truth-conditional content it contextually determines.

That pragmatic indications, though conventional, are context-dependent is shown by examples like (1):

(1) The weather is nice, but I have a lot of work

The conjunction 'but' is governed by a certain condition of use which distinguishes it from 'and'. According to Ducrot, 'but' is to be used only if the following conditions are contextually satisfied (Ducrot 1972: 128ff):

- (i) The first conjunct (P) supports a certain conclusion \underline{r} ;
- (ii) The second conjuncts (Q) supports not-r;
- (iii) Q is considered stronger than P, i.e. the whole utterance supports not-r.

Uttering (1) pragmatically implies that the conditions of use associated with 'but' are satisfied, i.e. that there is a conclusion \underline{r} such that the first conjunct supports \underline{r} and the second conjunct more strongly supports not-r. But the pragmatic implication conveyed by a particular utterance of (1) is much more specific. In context, the variable ' \underline{r} ' is assigned a particular interpretation, e.g. we should go for a walk. (1) therefore pragmatically implies something like (2):

(2)
We should not go for a walk (because of all the work I have to do), despite the nice weather which suggests otherwise.

Insofar as it is context-dependent and conveyed by the token, this pragmatic implication is to be located at the second level of meaning, alongside the content of indexicals. Even in a case where the pragmatic indication is fully conventional and not in need of contextual specification, it is conveyed by the token, not by the type. Thus a particular use **u** of the pronoun 'I' indicates that it (**u**) refers to the speaker of **u**. This token-reflexive indication is distinct from the rule of use, to the effect that for all \underline{x} , if \underline{x} is a token of 'I' it must be used to refer to the speaker of \underline{x} .

The picture is further complicated by the Gricean distinction between what is literally said and what is non-literally or indirectly communicated. We end up having a three-fold distinction between the following layers of meaning:

First level: rules of use ('character', in Kaplan's framework)

Second level: truth conditional content + pragmatic indications

Third level: conversational implicatures

The need for a third level of meaning comes from the fact that the contextual process responsible for conversational implicatures (and non-conventional pragmatic implications in general) takes the second-level meaning of the utterance as input. When an expression is governed by a condition of use, using that expression pragmatically implies that the condition is satisfied. But conversational implicatures, in contrast to conventional implicatures, are not generated by virtue of a condition of use directly associated with a particular linguistic expression; they are normally generated by virtue of conversational norms which concern the content of utterances rather than the expressions which are used to convey that content. For example, a speaker should not say what he believes to be false ('maxim of quality', in Grice's terminology); as a result, saying that P pragmatically implies that the speaker believes that P. The generation of this pragmatic implication presupposes that the proposition expressed has been identified: from the fact that the speaker has said that P, together with the default assumption that the maxim of quality is respected, we can infer that the speaker believes that P. The implicature-generating process therefore deserves to be called a 'secondary pragmatic process' (Recanati 1993). There are three basic levels of meaning, with the context controlling the transition from the first to the second and from the second to the third. The proposition expressed by the utterance must first be contextually identified (primary pragmatic process) in order for the non-conventional pragmatic implications to be derived (secondary pragmatic process).

7 Open texture

For ordinary language philosophers, the truth-conditional or 'descriptive' content of an utterance is a property of the speech act, not a property of the sentence. A sentence only has truth-conditions in the context of a speech act. This is so not merely because of indexicality — the fact that the reference of some words depends on the context of utterance in a systematic way. Indexicality is only one form of context-dependence. There is another one, no less important, which affects the sense (the conditions of application) of words rather than their reference. According to Austin and Wittgenstein, words have clear conditions of application only against a background of 'normal circumstances' corresponding to the type of context in which the words were used in the past. There is no 'convention' to guide us as to whether or not a particular expression applies in some extraordinary situation. This is not because the meaning of the word is 'vague', but because the application of words ultimately depends on there being a sufficient similarity between the new situation of use and past situations. The relevant dimensions of similarity are not fixed once for all — this is what generates 'open texture' (Waismann 1951). Ultimately, it is the context of utterance which determines which dimension of similarity is relevant, hence which conditions have to be satisfied for a given expression to apply (Travis 1975, 1981). It follows that the sense of ordinary descriptive words is context-dependent, like the reference of indexicals, though not quite in the same way. On this approach, which we may call 'contextualism',

truth-conditions cannot be ascribed to sentence-types but only to utterances (Searle 1978, 1983).

Contextualism was a central tenet in the pragmatic conception of language developed by ordinary language philosophers (though some atypical ordinary language philosophers, like Grice, rejected it). This conception is, at bottom, a use theory of meaning. Meaning is use, in the following sense: there is nothing more to meaning than use (Wittgenstein 1953). We are confronted with uses of words, and the meaning which those words acquire for us is only the sense we are able to make of those uses.

8 The semantics/pragmatics distinction

If much of contemporary pragmatics derives from the work of ordinary language philosophers, the name 'pragmatics' — contrasted with 'syntax' and 'semantics' — was coined by a philosopher in the ideal language tradition, Charles Morris (Morris 1938). The general conception associated with Morris's tripartite distinction has been very influential. On this conception (hereafter 'the traditional conception'), semantics and pragmatics are complementary studies: semantics deals with meaning understood as representational content, whereas pragmatics deals with use. This view, still influential today, is at odds with the more radical conception developed within ordinary language philosophy and sketched in the previous sections. (According to the latter view, meaning *cannot* be divorced from use; semantics *is* pragmatics.) However, as we shall see, the border between semantics and pragmatics has become much fuzzier as the traditional conception, with its sharp contrast between the two disciplines, was modified in order to account for indexicality, pragmatic indications, and related phenomena.

The traditional conception is commonly glossed in two different ways, corresponding to two different distinctions. The first distinction is that between 'meaning' (i.e. representational content) and 'force', to be found both in Frege and Austin. An utterance (i) represents a certain state of affairs, and (ii) serves to perform a certain speech act. The semantics/pragmatics distinction is often expressed in terms of this distinction: Semantics deals with representational content, it studies the relations between words and the world, while pragmatics studies the relations between words and their users. The second distinction is that between sentence meaning and utterance meaning. Semantics is supposed to deal with the linguistic meaning of sentence-types, while pragmatics is concerned with the total significance of an utterance of the sentence by a particular speaker in a particular context. The traditional conception is indifferently expressed in terms of either distinction because the conventional meaning of the sentence-type *is* its representational content, in the traditional conception.

The problem with the traditional conception is precisely that it rests on the equation of the meaning of the sentence with its representational content. This equation cannot be accepted, for two reasons:

[1] Indexical sentences represent a specific state of affairs only in context; their representational content depends on some feature of their context of use, hence it cannot be equated with the context-independent meaning of the sentence-type. Because the truth-conditions of indexical sentences depend on their use, some authors have argued that the study of truth-conditions for such sentences belongs to pragmatics (Bar-Hillel 1954); it has even been suggested that pragmatics *is* the study of truth-conditions for indexical sentences (Montague 1968).

[2] As we have seen, there are use-conditional as well as truth-conditional aspects of the meaning of sentence-types. To account for them, it seems we must give up the purely truth-conditional conception of semantics and make room for a non-truth-conditional component within the latter. Alternatively, we can say that it is the business of 'pragmatics' to deal with some aspects of the linguistic meaning of sentence-types, namely those aspects which relate to use. Thus Gazdar defines pragmatics as 'semantics minus truth-conditions' (Gazdar 1979).

Some philosophers have tried to defend the traditional conception by forcing use-conditional aspects of meaning into the mold of truth-conditional semantics. Take, for example, the imperative mood. One can use the pragmatic equivalence between the imperative 'Close the door!' and the 'explicit performative' 'I order you to close the door' (Austin 1975: 32) to support the claim that non-declarative sentences have a declarative paraphrase through which they can be given a truth-conditional analysis (Lewis 1970: 54-61). A number of similar attempts have been made to reduce use-conditional to truth-conditional aspects of meaning (e.g. Davidson 1979). Despite these attempts, it is commonly acknowledged that not all aspects of linguistic meaning are truth-conditional. There are two components in the meaning of a sentence: a truth-conditional or descriptive component and a non-truth-conditional, pragmatic component. The pragmatic component of sentence meaning constrains the context of utterance — it is a 'procedural' component. As for the descriptive component of sentence meaning, it can no longer be equated with the truth-conditional content of the utterance (because of objection [1]), but it can still be construed as what determines that content with respect to a context of use.

This leaves us with two interpretations of the semantics/pragmatics distinction, both current in the contemporary literature. On one interpretation, dominant among philosophers, pragmatics deals with use — including use-conditional aspects of meaning (pragmatic indications, presuppositions, and the like) — while semantics deals both with the descriptive component of sentence meaning and the truth-conditional content it determines (with respect to a context). The other interpretation, widespread among linguists, has it that semantics deals with conventional sentence meaning under all its aspects (including non-truth-conditional aspects), while pragmatics deals with use and the aspects of meaning which are contextual and use-dependent, i.e. which are conveyed by the utterance but cannot be ascribed to the sentence-type (Katz 1977: 13-22). (This category of 'contextual meaning' is somewhat heterogeneous; it includes both the semantic values of context-sensitive expressions, which are constitutive of the proposition literally expressed by the utterance, and other aspects of meaning which are not 'literal', e.g. conversational implicatures)

9 Context and propositional attitudes

The descriptive component of sentence meaning can be equated with a function from contexts into propositions (Stalnaker 1970, Kaplan 1989a). The 'context' is often construed a package of various situational factors relevant to determining the semantic values of the context-sensitive constituents of the sentence. (See section 10 for an alternative construal.) Thus the place of utterance, the identity of the participants in the speech episode, the time of utterance are among the factors on which the proposition expressed by an indexical sentence depends. It would be a mistake, however, to hold that only such 'external' (i.e. non-intentional) features of the situation of utterance have a role to play in the determination of what is said. In many cases, what the speaker 'has in mind' is the relevant factor. Thus 'John's book' can mean the book which John wrote,

the book which he bought, the book he is reading, or whatever. The sentence in which the expression 'John's book' occurs expresses a definite proposition only when a particular relation between John and a certain book has been contextually determined, but there is no 'rule' which enables the interpreter to determine the latter except that it must be the relation which the speaker 'has in mind'. (Constrast this with the case of 'I': as Barwise and Perry [1983: 33] pointed out, the reference of 'I' is fixed by the rule that 'I' refers to the speaker, irrespective of the speaker's beliefs and intentions. Even if the speaker believes that he is Napoleon, his use of 'I' does not refer to Napoleon.) The same thing holds for demonstratives in general: contrary to the received opinion, the reference of a demonstrative is *not* the 'demonstrated' object, for there may be no accompanying demonstration; the reference, rather, is the object which the speaker has in mind and wishes to single out (Kaplan 1989b; Bach 1987).

It turns out that the context against which an utterance is interpreted includes factors like the intentions, expectations, beliefs and other propositional attitudes of the speaker and her audience. Especially important are the beliefs which are shared and 'mutually known' to be shared; they constitute a 'common ground' which can be exploited in discourse (Stalnaker 1974, Clark 1992). This introduces us to the topic of 'presupposition' which is generally mentioned, along with speech acts, indexicals, and implicatures, as one of the central issues in pragmatics.

10 Presupposition

There is a basic sense in which 'presupposing' is a pragmatic attitude towards a proposition — the attitude consisting in 'taking it for granted'. (One takes something for granted, for example, when one uses it as a hidden premiss in an argument.) The 'context' is sometimes defined as a set of presuppositions in this sense, i.e. a set of propositions which are taken for granted at a given point in discourse (see e.g. Karttunen 1974). Many authors think that in order to be part of the context, a proposition must be not only believed by the participants in the speech episode, but also believed to be believed, and so forth. Other authors find this 'mutual belief' requirement too strong (Smith, ed., 1982). Be that as it may, a more pressing question arises in connection with presuppositions. Beside the pragmatic notion of presupposition (where presupposing is something a speech participant does), is there also a purely semantic notion, where presupposing is something which a sentence does? For example, does the sentence 'John stopped teaching undergraduates' carry the presupposition that John used to teach undergraduates as part of its semantic, truth-conditional content?

The semantic notion of presupposition has been questioned on two grounds. First, it has been pointed out that presuppositions, like conversational implicatures, seem to be defeasible or cancelable. This might suggest that the basic, pragmatic sense is the only sense we can give to the notion of presupposition. Sentences do not have presuppositions; only the participants in a speech episode can presuppose something. This conclusion, however, seems too strong, for the conventional nature of presuppositions is manifest and well-documented. Arguably, what the defeasibility of presuppositions shows is not that presuppositions are non-conventional, but rather that they can be overridden if certain conditions are satisfied (Gazdar 1979).

More convincing is the claim that presuppositions, though part of the conventional meaning of the sentence, do not affect the truth-conditions of the utterance. Like pragmatic indications in general, the linguistic presuppositions associated with certain expressions (e.g. the verb 'stop' in the example above) can be construed as conditions of use or constraints on the context (Stalnaker 1974). The linguistic presupposition encoded by the verb 'stop' is a certain constraint on the

context, namely the requirement that it contain a speaker with a certain pragmatic attitude (the attitude of 'presupposing') towards a certain proposition, or (if the context is directly construed as a set of propositions) the requirement that it contain a certain proposition, namely the proposition that John used to teach undergraduates. An utterance of 'John used to teach undergraduates' is 'appropriate' only in a context in which this constraint is satisfied. The constraint in question belongs to the non-truth-conditional component of sentence meaning; it does not affect the (truth-conditional) 'content' of the utterance.

11 Interpretation and context-change

The rich, propositional notion of 'context' which features in discussions of presupposition is at the heart of contemporary pragmatics. As we have seen in connection with demonstratives and semantically indeterminate expressions, the context provides 'assumptions' concerning the speaker's intentions and expectations, which assumptions are used to determine the proposition expressed by the sentence. This process of determination is construed as fundamentally inferential and propositions-involving. (On the intentional-inferential approach, see below, section 14.)

The propositional notion of context makes it possible to see the relation between context and content as two-way rather than one-way (Kamp 1985: 240). The proposition expressed, which depends on the context, itself changes the context. According to dynamic theories of discourse, the content of an assertion is normally fed into the context against which the next utterance will be interpreted (Karttunen 1974; Stalnaker 1978; Kamp 1985; Heim 1988). The context of interpretation constantly changes — Stalnaker speaks of an 'everchanging context' — because it evolves as discourse proceeds. Thus it is possible for the context to shift in the middle of an utterance. This possibility accounts for a number of puzzling facts, including the defeasibility of presuppositions.

If the proposition expressed by an utterance is normally fed into the context, the assumption that this proposition has been expressed always becomes part of the context as a result of the interpretation of the utterance. It is this assumption, together with the default assumption that the speaker respects the norms of conversation (plus various other assumptions included in the context), which make it possible to infer the conversational implicatures which enrich the overall meaning of the utterance. It follows that the contextual changes induced by an utterance by virtue of its expressing a certain proposition affect not only the interpretation of the utterances that follow, but equally the overall meaning of the very utterance responsible for the contextual change.

Another sort of context-change induced by an utterance has been described by David Lewis (1979). Sometimes the default assumption that the speaker respects the norms of conversation prevents the utterance from being interpreted with respect to the context at hand because, if it were so interpreted, it would violate the norms in question. This leads to a modification of the context in order to reach a more satisfactory interpretation. Thus if the utterance presupposes that P, and P is not part of the context at hand, it is introduced into the context in order to render the utterance conform to the norms ('accommodation').

12 The strategic importance of conversational implicatures

If semantics and pragmatics both study the contextual determination of the proposition expressed (insofar as it depends both on the linguistic meaning of the sentence and the context), conversational implicatures fall within the sole domain of pragmatics, for they

are not constrained by the linguistic meaning of the sentence in the way the proposition expressed is. Yet the theory of implicatures has important consequences for semantics. Thanks to Grice's theory, many intuitive aspects of meaning can be put into the 'pragmatic wastebasket' as implicatures, rather than treated as genuine data for semantics. Take, for example, the sentence [P or Q]. It can receive an inclusive or an exclusive interpretation. Instead of saying that 'or' is ambiguous in English, we may consider it as unambiguously inclusive, and account for the exclusive reading by saying that in some contexts the utterance conversationally implicates that [P] and [Q] are not both true. When there is such a conversational implicature, the overall meaning of the utterance is clearly exclusive, even though what is strictly and literally said corresponds to the logical formula 'P v Q'. It is here that the complementary character of semantics and pragmatics is particularly manifest. Semantics is simplified because a lot of data can be explained away as 'implicatures' rather than genuine aspects of the (literal) meaning of the utterance.

Grice's theory of implicatures has been extremely popular among semanticists precisely because it enables the theorist, when certain conditions are satisfied, to shift the burden of explanation from semantics to pragmatics. From this point of view, the most interesting notion is that of a generalized conversational implicatures (Grice 1989, Gazdar 1979, Levinson 1988). When a conversational implicature is generalized, i.e. generated by default, it tends to become intuitively indistinguishable from semantic content. Grice's theory has taught the semanticist not to take such 'semantic' intuitions at face value. Even if something seems to be part of the semantic content of an utterance, the possibility of accounting for it pragmatically, in terms of conversational implicature, must always be considered.

Grice's theory is important also because it has provided an influential argument against the contextualism professed by ordinary language philosophers. For example, Strawson had claimed that the truth-conditions of [P and Q] in English are contextually variable: the notion of temporal succession, or that of causal connection, or a number of other suggestions concerning the connection between the first and the second conjunct can enter into the interpretation of [P and Q], depending on the context (Strawson 1952: 81-2). 'They got married and had many children' mean that they had children after getting married; 'Socrates drank the hemlock and died' means that he died as result of drinking the hemlock. Those aspects of the interpretation are very much context-sensitive; yet they affect the utterance's truth-conditions. The truth-conditions of 'P and Q', therefore, are not fixed by a rigid rule, but depend on the context. As against this view, Grice has argued that the truth conditions of 'P and Q' are fixed and context independent. [P and Q] is true if and only if [P] and [Q] are both true. Thus 'They got married and had many children' would be true, even if they had the children before getting married. To be sure, the utterance conveys the suggestion that the children came after the marriage. But this suggestion is nothing other than a conversational implicature, according to Grice. It does not affect the utterance's semantic content — its literal truth-conditions. Grice criticized his fellow ordinary language philosophers for confusing the truth-conditions of an utterance with its total significance. Though controversial (Travis 1985), this argument has been very popular, and it has played a major role in the subsequent downfall of ordinary language philosophy.

13 Communicative intentions

The pioneers of pragmatics (e.g. Malinowski and Austin) used to insist on the social dimension of language as opposed to its cognitive or representational function. As pragmatics developed, however, it is the psychological dimension of language use that

came to the forefront of discussions, in part as a result of Grice's work on meaning and communication.

In his famous 1957 article, Grice defined a pragmatic notion of meaning: the notion of someone's meaning something by a piece of behaviour (a gesture, an utterance, or whatnot). Grice's idea was that this pragmatic notion of meaning was basic and could be used to analyse the semantic notion, i.e. what it is for a linguistic expression to have meaning. Strawson soon pointed out that Grice's pragmatic notion of meaning could also be used to characterize the elusive notion of an illocutionary act (Strawson 1964). In section 2 we mentioned the view that illocutionary acts are essentially conventional acts (like the acts which owe their existence to the rules of a particular game). This conventionalist approach was dominant in speech act theory until Strawson established a bridge between Grice's theory of meaning and Austin's theory of illocutionary acts. Illocutionary acts, in the new framework, can be analysed in terms of the utterly non-mysterious notion of a perlocutionary act.

A perlocutionary act consists in bringing about certain effects by an utterance. For example, by saying to you 'It is raining', I bring it about that you believe that it is raining. Now, according to the suggested analysis, to perform the illocutionary act of asserting that it is raining is (in part) to make manifest to the addressee one's intention to bring it about, by this utterance, that the addressee believes that it is raining. (This is not the full story, of course.) An illocutionary act therefore involves the manifestation of a corresponding perlocutionary intention. But there is a special twist which the suggested analysis inherits from Grice's original conception of meaning: the intention must be made manifest in a specially 'overt' manner. Not only must the speaker's intention to bring about a certain belief in the addressee be revealed by his utterance, but his intention to reveal it must also be revealed, and it must be revealed in the same overt manner. This characteristic (if puzzling) feature of overtness is often captured by considering the revealed intention itself as reflexive: A communicative intention, i.e. the type of intention whose manifestation constitutes the performance of an illocutionary act, is the intention to achieve a certain perlocutionary effect (e.g. bringing about a certain belief in the addressee) via the addressee's recognition of this intention. Also relevant to the characterization of overtness is the notion of 'mutual knowledge' (Lewis 1969, Schiffer 1972) which we have seen at work in the characterization of 'contexts' and 'presuppositions' (section 10).

14 The intentional-inferential model

Even though the conventionalist approach to communication is still alive (as witnessed by e.g. Millikan, forthcoming), the Grice-Strawson 'intentionalist' approach has gained wide currency in pragmatics. Typical in this respect are the neo-Gricean theories offered by Bach and Harnish (1979) and Sperber and Wilson (1986). They have put forward an inferential model of communication intended to supersede the 'code model' (or 'message model'), inspired from Shannon and Weaver. (See also Reddy 1979 for a well-known critique of the code model.)

According to the code model, communication proceeds as follows. The speaker wishes to communicate a certain content; she encodes the content in question into a sentence, using the grammar of the language as a 'code' pairing contents and sentences (possibly with respect to a context of utterance). The interpreter, by virtue of his knowledge of the same grammar (and, perhaps, of the context), is capable of decoding the sentence and recovering the intended content.

The alternative, inferential model of communication is very different. An utterance is seen as a meaningful action, i.e. an action which provides interpreters with

evidence concerning the agent's intentions. What distinguishes communicative acts from other meaningful actions is what can be inferred from the evidence: A communicative act is an act which provides evidence of a certain communicative intention on the part of the speaker. In other words, the speaker's intention to communicate something is what explains his utterance, considered as a piece of behaviour. From this point of view, the content of the communicative act — what is communicated — is the total content of the communicative intentions which can be inferred from it. Let us call this the utterance's communicative meaning, distinct from the literal or conventional meaning of the sentence (determined by the code, i.e. the grammar). Understanding is essentially an inferential process in this framework, and the conventional meaning of the sentence provides only part of the evidence used in determining the communicative meaning of the utterance.

15 Pragmatics and modularity

A characteristic feature of recent work in the Gricean tradition has been the explicit employment of concepts from (and the intention to contribute to) cognitive science. For example, Fodor's distinction between central thought processes and more specialised cognitive 'modules' has been found relevant to the characterization of the task of pragmatics. (See e.g. Kasher's papers in Davis, ed., 1991 and Tsohatzidis, ed., 1994.)

In the inferential framework, comprehension involves not only a specifically linguistic competence, namely knowledge of 'grammar', but also general intelligence, i.e. world knowledge together with inferential abilities. Contextual assumptions of various sorts, including assumptions about the speaker's beliefs and expectations, play a crucial role not only in the inferential process which, according to Grice and his followers, underlies the generation of conversational implicatures, but also in the determination of the proposition literally expressed by the utterance (Kempson 1988). Pragmatics, therefore, is concerned with the interaction between the language faculty and central thought processes in the task of linguistic comprehension (Sperber and Wilson 1986). It considers how the output of the linguistic module is centrally processed, i.e. processed against the interpreter's complete belief system.

The major difficulty here is the holistic character of the belief system (Fodor 1983). How is the total cognitive background restricted so as to yield a 'context' of manageable size? Sperber's and Wilson's 'relevance theory' addresses this crucial issue. Their view of pragmatics is squarely grounded in a general theory of cognition as relevance-oriented. One of their central ideas, shared by authors such as Herbert Simon (1994: 9-11) and David Lewis (1973: 115), is that the context in which an utterance is processed is not 'given' but 'constructed' — it results from an active search driven by the overarching goal to maximise relevance.

Sperber's and Wilson's claim that there is no special faculty or module corresponding to pragmatics (since pragmatics studies the interaction between general intelligence and linguistic modules) must be qualified. As Sperber himself stressed in various places (e.g. Sperber 1994), there is one special capacity which communicators must possess and which, arguably, poor communicators (e.g. autistic children) do not possess: the capacity to ascribe complex propositional attitudes, such as higher-order intentions. (As we have seen, understanding crucially involves a process of intention recognition, and the communicative intentions which must be recognized are complex, higher-order intentions. On autism and the metarepresentational faculty, see Baron-Cohen, Leslie and Frith, 1985).

16 Cognitive science and contextualism

The intentional-inferential framework has been very influential in cognitive science. The Grice-Strawson interpretation of speech act theory has given rise to computational models of discourse where intention recognition plays a key role (see Grosz et al. 1989; Cohen et al., eds., 1989.) The idea that meaning is 'inferred' has also been taken very seriously. Many cognitive scientists believe that in interpretation the meaning of an utterance is arrived at by 'guesswork', rather than by decoding (Green 1989).

Typical in this respect are complex nominals (noun-noun compounds like 'finger cup' or adjective-noun compounds like 'philosophical kitchen'), which have received a good deal of attention. The semantic value which such expressions assume in context (unless they are idiomatic) is not predictable on a purely linguistic basis; it results from an act of 'sense creation'. Here again, what matters is what the speaker has in mind — the interpreter can only guess, using a variety of contextual clues. Such expressions whose sense is irreducibly contextual have been dubbed 'contextual expressions' (Clark 1992).

Contextual expressions are semantically indeterminate. The extent of indeterminacy in language threatens the standard picture adhered to by most semanticists. According to that picture, 'what is said' is conventionally determined by the meaning of the sentence and the context. Then, and then only, is what the speaker really means 'inferred' — if there is reason to think that what the speaker means is distinct from what is said (e.g. if the speaker's literal contribution seems conversationally inappropriate and some further assumption is required in order to restore its conformity to conversational norms). As against this, both what is said and what is implied are seen as resulting from guesswork, because of semantic indeterminacy.

The fallback position for semanticists consists in holding that at least the meaning of the sentence-type is 'decoded' and can be read off the meanings of the constituents (as given in the lexicon) and the way they are put together. Decoding stops, and guesswork starts, only when we go from the meaning of the sentence to what the speaker means (this including both what is said and what is conversationally implied). But the fallback position itself has come under attack in the cognitive science literature. The very notion of the linguistic meaning of an expression-type has been questioned.

What is the linguistic meaning of a word? Is it possible to draw a line between 'pure' lexical knowledge and world knowledge? Arguably it is not (Langacker 1987: 154-66). For Langacker, the meaning of a word is a point of access into an essentially encyclopedic network. There is no distinction between 'dictionary' and 'encyclopedia'. A similar idea underlies Rumelhart's claim that interpretation is 'top down' from the bottom up (Rumelhart 1979). According to Rumelhart, who studied the comprehension of stories, what linguistic expressions do is evoke certain schemata in memory. Those memorized schemata are part of our knowledge of the world. Interpretation, whether literal or non-literal, consists in finding evoked schemata which fit the situation the speaker seems to be talking about.

Langacker and Rumelhart reject not only the dictionary/encyclopedia distinction but also the literal/non-literal distinction as traditionally conceived. They insist that the same cognitive processes are involved in literal and e.g. metaphorical interpretations (see also Gibbs 1994, Recanati forthcoming). A psychologist, Douglas Hintzman, has gone even farther, questioning the most basic distinction — that between the meaning of an expression-type and the contextual meaning of the token. Hintzman has developed a multiple-trace memory model in which the cognitive experiences associated with past tokens of a word interact with the present experience involving a new token of the word to yield the contextual 'meaning' of the latter (Hintzman 1986). Hintzman's model does

not appeal to the notion of the literal meaning of the word-type. Words, as expression-types, do not have 'meanings', over and above the collection of token-experiences they are associated with. The only meaning which words have is that which emerges in context.

Rejecting the three distinctions above — literal/non-literal, dictionary/encyclopedia, and type-meaning/token-meaning — amounts to rejecting the semantics/pragmatics distinction. The 'eliminativist' approach to linguistic meaning developed within cognitive science constitutes a return to contextualism, the radical conception of pragmatics associated with ordinary language philosophy (section 7). Pragmatics absorbs semantics, in a contextualist framework.

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