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Pragmatics

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Pragmatics, the theory of utterance-interpretation, is a branch of cognitive psychology. Utterances convey information which is conceptual, intentionally communicated and linguistically encoded, and which is processed in the context of additional conceptual material retrieved or derived from memory. An adequate pragmatic theory should incorporate a general account of the processing of conceptual information in a context, and a particular account of whatever special principles and problems are involved in the processing of information that has been intentionally, and linguistically, communicated.

Pragmatic theories in this sense, if not under this name, have always existed; however, it is only in the last ten years or so that pragmatics has become an institutionalized research field, with its own textbooks, international conferences and journals.[1] Its contributors are based in a variety of disciplines, including psychology and psycholinguistics, linguistics, AI and sociolinguistics. The field is so new and so diverse that no consensus on basic concepts and theories, or even on overall goals and research tasks, has yet emerged. Our remarks here like most contributions to the field, will be fairly speculative.

The main aim of pragmatic theory is to provide an explicit account of how human beings interpret utterances. To do this, one would have to say how disambiguation is achieved; how reference is assigned; how sentence fragments are interpreted; how ungrammatical utterances are dealt with. what role presuppositional phenomena play; how implicatures (intended inferences) are worked out; how contextual and encyclopaedic knowledge is brought to bear; and so on. Any organized set of answers to these and similar questions would constitute a pragmatic theory on some level of adequacy.

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[1] Recent and forthcoming general works include de Beaugrande and Dressler (1981), Cole (1978), Cole (1981), Leech (In press), Levinson (In press), Lyons (In press), Parrett and Verschueren (1980), and van Dijk (1977).

Work so far published in the field tends to fall into three categories. The first, and most interesting, consists of work which directly addresses these central questions. Grice's *William James Lectures* (1975, 1978) are classic examples. Here, Grice establishes a distinction between conventional meaning, assigned by semantic rule, and conversational meaning, created by the operation of a general communicative principle developed into various maxims of truthfulness, informativeness, relevance, perspicuity, etc. Work in this category can be both stimulating and suggestive,[2] but it is almost always so vague and intuitive as to constitute less a theory than a set of hints on how to go about constructing one.

The second category consists of empirical work. A good example would be Clark and Schunk (1980), which investigates responses to indirect requests and the properties which make them seem more or less polite. Work in this category, though it can be explicit and well-evidenced, is necessarily limited in scope, and is also hard to interpret in the absence of an established theoretical framework.

The third category consists of formal work. An interesting example is Gazdar (1979), in which the techniques of formal semantics are applied to a small range of pragmatic phenomena, and in particular pragmatic presuppositional phenomena. Work in this category is almost always explicit, but it is rarely directly relevant to the goals of pragmatic theory. Its practitioners tend to look only at questions that seem immediately amenable to formal treatment, and these are rarely the fundamental ones.[3]

Over the last few years, we have tried to develop answers of our own to some of the central questions of pragmatics. Our work borrows from Grice's the crucial insight that the interpretation of an utterance is based not only on meaning and context but also on a general communicative principle tacitly shared by the interlocutors. Our work also differs from Grice's in several important respects.[4] First, our claims are more explicit. For example, whereas Grice suggests a maxim of relevance without attempting to say what relevance is, we take an explicit definition of relevance as the basis for a reformulated Principle of Relevance, which in turn forms the basis for a unified pragmatic theory (see below).

Second, our work is psychological rather than philosophical in intent. We want to look at natural classes of phenomena, and to account for them in

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[2] See, for example, Ducrot (1972), Stalnaker (1974), and Allwood (1976).

[3] Gazdar (1979, pp. 53–4) remarks that his attempted formalization of some aspects of Grice's work loses much of the 'power and generality' of Grice's proposals, but adds 'not to stick to formalist methodology in an area like this can only lead out of linguistics and into literary criticism'.

[4] See Wilson and Sperber (In press) for discussion.

terms of principles with systematic psychological correlates. This has led us to reject Grice's most basic claim about the domain of pragmatic theory. Grice and most pragmaticians see pragmatics as concerned solely with utterance-*comprehension*, which involves recovery only of a set of propositions that the speaker specifically intended to convey.[5] We do not believe that comprehension is a well-defined domain. The typical case of communication seems to be one where the speaker specifically intends to express a certain proposition, and generally intends *some* conclusions to be drawn from it (generally intends it to have some relevance); however, there is much variety in the further intentions that he could have. At one extreme, he may have no specific intentions about the form or content of the conclusions to be drawn; at the other extreme he may have highly specific intentions about them; and between the two extremes, he could intend there to be conclusions of a certain general type, but not of a specific form, and so on. In other words, comprehension shades off imperceptibly into a wider process of utterance-*interpretation*, in which responsibility for a particular conclusion sometimes falls wholly on the speaker, sometimes falls wholly on the hearer, and in many cases is shared in some proportion by both. It is utterance-*interpretation*, not utterance-comprehension, that is the natural domain of pragmatic theory.

The third respect in which we differ from Grice is in the role we assign to relevance in the processing of all conceptual information, and to a Principle of Relevance in the interpretation of utterances. Intuitively, to establish the relevance of some proposition is to see how it connects up with some accessible body of information (or *context*). We argue, more explicitly, that to establish the relevance of a proposition is to combine it with a context of accessible information and infer from this combination some conclusions (*contextual implications*) which would not be inferable from either the proposition or the context on its own. To *maximize* the relevance of a proposition is to process it in such a way as to maximize the number of its contextual implications and minimize the processing cost of deriving them. Maximizing relevance, in our terms, is simply a matter of extracting information from the combination of a proposition and a context in the most efficient way, and it seems reasonable to assume that *all* conceptual information is processed with this aim.[6]

Most information is not very relevant. However, when a speaker intentionally provides a hearer with information, he thereby gives a guarantee that a certain standard of relevance has been aimed at. This guarantee is incorpo-

[5] Specifying the type of intentions involved is a complex technical matter. See Schiffer (1972) for discussion. For more general discussion of this issue, see Clark and Carlson (In press), and Sperber and Wilson (In press).

[6] For details of this account of relevance, see Wilson and Sperber (In preparation).

rated into our Principle of Relevance: *the speaker tries to make his utterance as relevant as possible to the hearer.* The hearer has a systematic expectation of relevance. He may, of course, have more specific expectations as to what the speaker will say, but, we argue, either these further expectations follow from the Principle of Relevance in the context, or else they are just ordinary elements of the context with no special role in interpretation.

The Principle of Relevance plays a unique role in the interpretation of utterances by providing a shared criterion against which possible interpretations can be tested. An utterance has been properly disambiguated, references have been properly assigned, sentence-fragments have been properly completed when and only when the resulting proposition satisfies the Principle of Relevance. We claim that either only one disambiguation of an utterance satisfies the Principle of Relevance, or an ambiguity is perceived by the hearer.[7] Similarly, the Principle of Relevance determines the implicatures of an utterance: when the speaker could not have expected his utterance to be relevant to the hearer without intending him to derive some specific contextual implication from it, then, and only then, that implication is also an implicature.[8]

A central question concerning the processing of conceptual information in context is how contextual information is selected, retrieved and exploited. We argue that this complex process is governed by the goal of maximizing relevance. A small initial context (the interpretation of the preceding utterance in the case of verbal material) is systematically searched for contextual implications and can be expanded in several directions. While each expansion may increase the number of contextual implications, it also increases the processing cost in such a way that the context must be kept narrow or else relevance would decrease.[9]

When, in the inferential processing of a proposition, the systematic search of a narrow context for possible contextual implications fails to satisfy expectations of relevance, use is made of what we call 'evocational processing'. This second form of processing consists in sampling a much larger context in search of conceptual connections on the basis of which relevance might be increased. Evocational processing can be intentionally triggered in a subject by providing him with information the relevance of which he will not be able to establish solely through inferential processing. This occurs, in particular, when-

[7] Experimental studies on the process of disambiguation take the goal of that process for granted. The goal of disambiguation is intuitively obvious but has not been so far explicitly described. The Principle of Relevance provides the basis for such a description.

[8] Presuppositional phenomena can also be accounted for on the basis of the Principle of Relevance; see Wilson and Sperber (1979), Sperber and Wilson (In preparation). For a discussion of previous accounts, see Wilson (1975).

[9] See Sperber and Wilson (In press).

ever a figure of rhetoric is used. Figures of rhetoric such as metaphors create and, at first, frustrate expectations of relevance which can then be satisfied through evocational processing. Along these lines, the Principle of Relevance can provide some insight into not only the inferential but also the evocational aspects of utterance-interpretation, and hence form the basis for a unified theory of pragmatics and rhetoric.[10]

If our approach to pragmatics is right, it closes down one line of research currently being pursued, and opens up a quite different one. Much recent work on pragmatics assumes the existence of a pragmatic device or module with its own formal properties and rules, comparable to the linguistic device and others suggested by recent psychological research. As far as we can see, there is no evidence for this assumption, or for the widely held alternative assumption that pragmatics is simply one component of the linguistic device. Pragmatics is not a separate device or sub-device with its own specialized structure: it is simply the domain in which linguistic abilities, logical abilities and memory interact.

Precisely because of this lack of specialization, we think pragmatics can yield valuable insights into other areas of psychology. There is a whole range of highly complex natural phenomena which are in important respects beyond the scope of experimental methods, and about which informants make only vague and subjective statements: for example, the understanding of a work of art, or a ritual, or another person. Utterance-interpretation is also a highly complex natural phenomenon which cannot always be experimentally studied; however, intuitions about utterance-interpretation are somewhat more clear-cut and less controversial: it would be rare, for example, to find two informants disagreeing about the disambiguation of an utterance in context. Psychologically justified pragmatic theories are thus easier to construct than, say, psychologically justified aesthetic theories. If we are right about the lack of a specialized device for utterance-interpretation, the basic principles involved in it should be equally applicable to other complex natural phenomena of the same type: phenomena which, like the interpretation of utterances, seem to involve, in a search for relevance, a combination of inferential and evocational processing. Pragmatics thus seems to us to be capable of throwing direct light on psychological mechanisms of some generality and indirect light on other areas of thought where these mechanisms play a part.

We think pragmatics is entering a more active and creative phase. However the best we can expect is quite modest compared to the task at hand. It is likely that theoretical work in pragmatics (and in related areas of psychology) will remain highly speculative. But speculation need not be trivial or vague.

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[10] See Sperber (1975*a*, 1975*b*, 1980), Sperber and Wilson (1981, In preparation).

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