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LINGUISTICS: THE RELATION OF PRAGMATICS TO SEMANTICS AND SYNTAX

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INTRODUCTION

In the past few years there has been a remarkable growth of research on the topic of pragmatics. In this review I will sketch and discuss some developments in conversational pragmatics and their impact on syntactic and semantic studies. Before proceeding to this task, though, some discussion of the term "pragmatics" is in order.

THE RANGE OF THE TERM "PRAGMATICS"

The term "pragmatics" is in wide and fashionable use today in linguistics, philosophy, psychology, and adjoining fields. Its applications range from the narrow scope of the study of the meaning of deictic expressions to use as a catch-all category covering all aspects of communication that cannot be analyzed as literal meaning, including even matters of turn-taking and social interaction.

Morris (28) used "pragmatics" to describe those aspects of language which involve users, and contexts of use, of linguistic expressions. He opposed pragmatics to syntax (the study of linguistic form) and semantics (the study of the literal meaning of expressions). But Morris's discussion of pragmatics was programmatic and not very specific. Bar-Hillel (3) proposed more specifically that pragmatics be concerned with indexical expressions; that is, expressions whose meaning or reference cannot be determined without reference to context—the pronoun *I* and the adverbs *here, now,* and *then,* for example. Despite such discussions, the study of pragmatics in linguistics received little attention until strong interest in it was provoked in the early 1970s, when the interests of philosophers and linguists (especially, but not exclusively, those associated with "generative semantics") converged on the topics of presupposition and conversational implicature (these terms will be explained below).

Stalnaker (40), motivated by an interest in presupposition and its relation to semantics, gives a broader characterization of pragmatics as "the study of linguistic acts and the contexts in which they are performed." In his influential program, semantics is the study of "propositions," not sentences. Sentences are not propositions, but are used to express them. Thus one cannot directly speak of the truth or falseness of a sentence like "they are here now" without constructing from context of utterance particular values for "they," "here," and "now"; the result is a proposition whose truth can be evaluated. Pragmatics, then, is the study of "the ways in which the linguistic context determines the proposition expressed by a given sentence in that context," and includes the study of speech acts, indexicals, knowledge, beliefs, expectations, and intentions of the speaker and hearer, and other aspects of context that bear on the determination of the proposition expressed by a sentence. On top of this, the term "pragmatics" has come to be used also for the study of meaning *implied* by the proposition the sentence is used to express. The philosopher H. P. Grice (14), in an extremely important and influential paper (circulated underground for several years prior to publication), gave an insightful account of aspects of indirectly conveyed meaning ("conversational implicatures") that cannot be considered part of the literal meaning of the sentence, but are the result of inferences about the speaker's intentions in saying what he says. Grice's paper has led to a gradual broadening of interest in matters of context, communication, and intention, so that now the term "pragmatics" is applied even to studies of discourse structure, politeness, and social interaction in conversation. What unites all these apparently disparate areas under the same term is the crucial role in each of inference, in context, about the intentions of the speaker. Whether this blanket characterization covers a genuinely unified set of phenomena, or is merely so vague and general as to be vacuous, will probably not become obvious for several years.

HIGHLIGHTS OF RECENT WORK ON PRAGMATICS

J. L. Austin's (2) concept of the "speech act" has had a pervasive influence in linguistics in the past few years. Austin's basic observation is different from the usual view of sentences as formal objects to be treated as well-formed formulae of a logico-mathematical semantic system, independent of speaker, hearer, and context. Austin observes that many sentences—"performative" sentences—of deceptively declarative form, are nonetheless not regardable as true or false; rather, they must be described in terms of "illocutionary acts" on the part of the speaker which may succeed or go awry in various ways, depending on matters of intention and context that he calls "felicity conditions." For example, the sentence "I christen this ship the USS Esmerelda" seems not to be a sentence one could appropriately describe as true or false. Rather, one could most appropriately speak of it as succeeding or failing as (part of) an act of christening, depending on the authority of the speaker to christen, the presence of the right ship, and so on. Austin raises the question whether *all* sentences ought not to be considered as instances of various kinds of speech acts, for which he provides a classification system. His work has inspired an extensive literature on theoretical problems of the notion "speech act"; for example, Cohen (5), Searle (37), Strawson (42), McCawley (22), and Stampe (41).

Austin's work has also inspired an influential transformational theory of the performative sentence—the "performative hypothesis" put forth by Ross (30) and Sadock (32). In this theory every sentence has as its highest verb in deep structure a "performative verb" (roughly, a verb that names the speech act the sentence can be used to perform). Thus a declarative sentence like "It's raining in Philo" would have an underlying structure like "I say to you that it's raining in Philo," and "Is it raining in Philo?" would have an underlying structure of the same sort as "I ask you whether it is raining in Philo." This theory was originally framed as an explanation for certain apparently syntactic phenomena (a goal it has never completely achieved), all syntactic arguments for it being of the same general form. The distribution of some lexical element, or the application of some syntactic rule, is shown to consist of two environments: 1. embedded, with certain restrictions on the embedding environment, involving either some co-reference condition between main and embedded clauses or some restriction on the verb in the main clause; and 2. unembedded, in the main clause of sentences with certain speech act properties, perhaps including some peculiar constraints on matters of reference. For example, the idiomatic expression ". . . be damned if . . ." with the meaning (roughly) of emphatic denial, is sometimes described in these terms; it can occur embedded as a complement of a verb of stating as in 1 but not 2 below, as long as the subject of the idiom is identical to that of the verb of stating, a condition violated in 3.

1. John says he'll be damned if he'll eat there again.
2. *John regrets that he'll be damned if he'll eat there again.
3. *John says you'll be damned if you'll eat there again.

Second, the idiom can occur with its nonliteral meaning in main clauses, but only if the sentence is one that would be used to perform an act of stating, as in 4 but not 5,

4. I'll be damned if I'll eat there again.
5. *Will I be damned if I'll eat there again?

and only if the subject is first person, as in 4 but not 6.

6. *You'll be damned if you'll eat there again.

Under the performative hypothesis, 2 and 5 are considered anomalous for essentially the same reason, as are 3 and 6. This result is achieved in the following way: if we assume that this problem is to be described in syntactic terms, then we are faced with a nonunified account, consisting of one statement describing the distribution of ". . . be damned if . . ." in subordinate clauses, and another apparently unrelated statement describing the distribution of the idiom in main clauses. We can give a unified account by reducing one of these environments to a subcase of the other. To do this, we hypothesize that the apparent main-clause instances are in fact cases of embedding where the underlying main clause has been deleted. Thus the underlying structure of cases like 4, 5, and 6 would be something like 7, 8, and 9, respectively:

7. I say to you that I'll be damned if I'll eat there again.
8. I ask you whether I'll be damned if I'll eat there again.
9. I say to you that you'll be damned if you'll eat there again.

Thus 8 and 9 can be seen to violate the now *general* condition 10, and the ungrammaticality of 5 and 6 is thereby accounted for.

10. The idiom ". . . be damned if . . ." can occur only embedded in the complement of a verb of stating, and the subject of the idiom must be identical in reference to that of the verb of stating.

The performative hypothesis has been attacked on various grounds by Anderson (1), Fraser (9), Morgan (26), and Searle (39), among others. There are three important lines of attack. First, there are a large number of apparent counter-examples to the hypothesis that the performative verb is always the highest verb in underlying structure, as exemplified in 11 through 15, where the verb that names the act the sentence is used to perform is not in the main clause, but in a subordinate clause, thus not "highest."

11. I'm afraid I must ask you to leave.
12. May I offer you a cookie?
13. Your behaviour leaves me no alternative but to sentence you to 20 years.
14. The university takes great pleasure in announcing that there will be no raises this year.
15. I regret to announce that the King is dead.

Some or all of these counter-examples could be dealt with, at least in principle, in either of two ways: first, by claiming that a particular case is an *indirect* speech act (see discussion below) and therefore not a genuine counter-example. This approach seems appropriate for cases like 12, which one might plausibly say is really a question and only indirectly an offer. Second, one could attempt for a given counter-example an analysis wherein it is only at the level of surface structure that the performative verb is in a subordinate clause. For 15, for example, one might propose an underlying structure like 16, which does not count as a counter-example to the condition, which says only that the performative verb must be highest in underlying structure, not necessarily in surface structure.

16. I announce that the King is dead, and I say that I regret it.

But entirely satisfactory accounts in these terms have not yet appeared, and the counter-examples remain a problem.

A second, more difficult problem for the performative hypothesis is data that suggest that a syntactic approach to such phenomena is a mistake in the first place. Examples like 17 and 18 point to the conclusion that it is the speech act nature of the sentence, not its syntactic properties, that determines the distribution of the elements in question.

17. I want you to know that I'll be damned if I'll ever eat there again.
18. I hope it's obvious to everybody that I'll be damned if I'll eat there again.

It would seem that in cases like this one must either abandon the assumption that the solution is a syntactic environment, or reduce the notion "syntactic environment" to vacuity. But if the correct conclusion is that the distribution of such elements, and the application of some syntactic rules, is determined not by syntactic properties (or even semantic properties, apparently) of the sentences involved, but by the nature of the speech act purposes for which the sentence is used, then the result is a theory of grammar of a radically new and unfamiliar nature.

The third major problem for the performative hypothesis, or indeed for any analysis of such matters, is providing an account of the relation between semantic properties of linguistic elements and the speech act properties of the sentences in

which they occur. The relation is sometimes construed as an automatic one; that the truth-condition semantics of a given word allows one to predict its speech act properties. For example, knowing the meaning of 19 allows one to know that 20 can be used to apologize.

19. John apologized.
20. I apologize.

In knowing the regular English semantic rules of combination and the meanings of the words, *I, christen,* etc, one knows *thereby* that 21 can be used to christen a ship with the name *Thelma.*

21. I christen this ship Thelma.

But this construal of the relation between semantics and speech acts is probably mistaken; at least there are some severe difficulties in making it work. For example, one would suppose from the meaning of *fire* in 22 that 23 ought to be a way of firing people. But 24 is used instead.

22. John fired Bill.
23. I fire you.
24. You're fired.

Similarly, the semantic approach to speech act properties seems to imply that 25 can be used to divorce; but it can't, at least in this culture.

25. I divorce you.

And it is hard to see how a semantic approach can possibly yield a perspicuous account of the situation in a culture where 26 is used to divorce. Is each sentence one-third performative?

26. I divorce you. I divorce you. I divorce you.

It appears from such cases that a semantic analysis provides neither necessary nor sufficient conditions for a given expression to be usable performatively. Rather, semantic criteria [of the sort discussed by McCawley (22), for example] characterize only a class of *natural candidates* for use as performative formulae. But the natural candidate may not be actually usable, because no performative formula is used in performing the act, or because some other natural candidate is used, or because (conceivably) some expression which is *not* a natural candidate is used, perhaps by some historical accident. For example, a culture could just as well establish a convention whereby boats must be christened not by saying "I christen . . .", but by saying the boat's name twice, reciting the Lord's Prayer, and spitting in a porthole. So it appears that knowledge of language per se must be distinguished from knowledge of another kind of convention, conventions about certain ways in which expressions can be used. Knowledge of language provides only a class of expressions that *could* be used, *by virtue of their meaning,* as performative formulae; knowledge of culture (law, religion, etc) tells us which (if any) of the natural candidates is actually recognized as a valid performative formula. But there do seem to be sentences whose speech act potential is a matter of knowledge of language, rather than knowledge of culture. It is knowledge of English that tells us that 27, 28, and 29 can be used to state, question, and order, respectively.

27. It's five o'clock.
28. Is dinner ready?
29. Sit down!

PRAGMATICS AND SEMANTICS

Conversational Implicature

Grive (14) makes clear that much more is conveyed in the utterance of a sentence than merely the literal meaning of the sentence. For example, if upon being asked to a late party I reply, "I have an eight o'clock class," I will probably succeed in conveying a refusal of the invitation, even though the literal meaning of my reply is not the same as that of the sentence "I won't come to your party." Or, in Grice's example, if someone asks me how a friend is doing in his new job at a bank, and I reply "Oh quite well, I think; he likes his colleagues, and he hasn't been to prison yet," then I will probably convey the opinion that the friend's honesty is open to question, though it would be entirely implausible to attribute that meaning directly to any part of the sentence I uttered.

Grice offers an informal account of conversational implicature that can be described as a framework for inferring the speaker's intentions in saying what he says, with the literal meaning it has. Grice's account has as its basis the "Cooperative Principle": "Make your conversational 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" (14, p. 45). From this he derives conversational "maxims" of four categories—Quantity, Quality, Relation, and Manner—such as "make your contribution as informative as is required," do not say what you believe to be false," "be relevant," and "avoid ambiguity of expression." Grice takes pains to point out that these maxims are not unique to language use, but are instead the general means by which any form of behavior is understood as rational, a point often overlooked in subsequent literature on conversational implicature.

It is clear that we spend most of our waking hours interpreting the behavior of other people by assigning intentions to their saying and doing. The process is usually not entirely conscious, and much of the behavior we observe does not attract our conscious notice as long as we are able to classify it as non-threatening. But if we encounter behavior that is not easily classifiable, it catches our direct attention until we are able to form some hypothesis about the nature of the intentions behind it. In this light Grice's maxims can reasonably be considered from the hearer's viewpoint as a set of rules for making inferences about the speaker's intentions in the linguistic acts he performs, and from the speaker's viewpoint as a set of rules for selecting linguistic acts that make his intentions clear.

Grice's maxims sometimes seem trivial to the casual reader, but in fact their beauty lies in their obvious simplicity. Grice and others show convincingly that nontrivial results can be derived from these seemingly trivial principles. Horn (16), for example, attacks some difficult problems of quantifiers and scalar predicates from a Gricean viewpoint, and derives important results. One result is a demonstration that certain classical problems of entailment between quantified statements can be reduced to conversational implicature; for example, that the problematic relation between instances of existential quantification as in "some men are mortal" and "some men are not mortal" is not a relation of entailment, but a conversational implicature that can be naturally accounted for by Grice's maxims and the notion

"scalar predicate." In Horn's analysis, if one has good reason to believe 30, then to say 31 is a violation of Grice's maxim of quantity.

30. All linguists are human.
31. Some linguists are human.

If what's at issue is the membership of the set of human linguists, then to say the true sentence 31 is nonetheless to be insufficiently informative. From the hearer's viewpoint, if one assumes that the speaker of 31 is adhering to conversational maxims—in particular, giving as much relevant information as one has evidence for —then it would follow that the speaker has no reason to believe 30, or he would have said it instead of 31. The utterance of 31 thus conveys by implicature that some lingusts are *not* human.

Indirect Speech Acts

Grice's notion of conversational implicature has also been proposed as an account for what Gordon & Lakoff (11) call "indirect speech acts"; that is, conversational implicatures wherein a sentence with a certain speech act nature is used to convey what amounts to a second speech act, perhaps of a different kind. There are many examples of this sort. For example, a yes-no question can be used to indirectly make assertions, offers, requests, or wh- questions, among other things. Thus the *a* examples below might, on occasion, be used with the effect of the *b* examples.

32a. Would I lie to you?
32b. I wouldn't lie to you.
33a. Wouldn't you like a drink?
33b. Have a drink.
34a. Can you please hand me that hammer?
34b. Please hand me that hammer.
35a. Do you know where the bathroom is?
35b. Where's the bathroom?

Sadock (31), Davison (7), Gordon & Lakoff (11), Searle (38), Green (12) and Fraser (10) provide detailed discussions of various kinds of indirect speech acts.

Semantics vs Pragmatics

The difficult and controversial issues in this literature revolve around the problem of distinguishing conversational implicature from literal meaning. For example, in saying 36 one usually conveys clearly that disrobing preceded getting into bed.

36. I took off my clothes and got in bed.

But should this be dealt with as part of the literal meaning of the sentence, or as conversational implicature? One could construct an initially plausible case for either approach. It is clear that semantic and pragmatic analyses compete as accounts of many phenomena, raising questions as to how much of the traditional territory of semantics is to be taken over by pragmatics. Many problems of reference—Donnellan's (8) attributive-referential distinction is a good example—can be more appropriately described in pragmatic, not semantic, terms [see Stalnaker (40) for discussion]. Nunberg & Pan (29) propose an analysis of generic nominal expressions (as in the

subject noun phrases in "a symphony has four movements" or "elephants never forget") in which the analytically troublesome "all"-like quantifiers involved in the understanding of these sentences are not part of the literal meaning of the expressions, but are inferred via pragmatic principles. Horn (17) and Halpern (15) have discussed pragmatic accounts of the semantico-syntactic rule of negative-transportation that is often proposed as an account of the fact that a sentence like 37 can be understood to mean 38.

37. I don't think it's raining.
38. I think it's not raining.

Presupposition, often taken to be a semantic problem, has recently been discussed as at least partially pragmatic in nature [Stalnaker (40), Morgan (23), Karttunen (18, 19)]. But reliable tests for distinguishing pragmatic from semantic properties have not yet been established. Grice's discussion provides some informal tests for conversational implications, but Sadock (33) shows they are not sufficient as tests. The problem is made especially difficult by the fact, pointed out by Cole (6) and Sadock (32), that conversational implicature can become "grammaticalized" as literal meaning, no doubt a common source of semantic change. This kind of diachronic development is frequent in the fossilization of euphemisms, to choose a common example, so that the very meaning the euphemism is employed to avoid is later grammaticalized as the literal meaning of the expression. Thus "go to the bathroom," originally a device to discuss taboo bodily functions without directly mentioning them, for many speakers now means literally what it formerly only hinted at. So some speakers now say 39 or 40 without any sort of contradiction or semantic anomaly.

39. The dog went to the bathroom on the living room rug.
40. The baby went to the bathroom all over me.

Given the possibility of this kind of diachronic development, it follows that it will often be difficult to distinguish a genuine case of conversational implicature from a case where implicature has been "frozen" as literal meaning, so that the expression wears its history on its sleeve. This is in fact Sadock's position on such sentences as "can you pass the salt". *Can you* is now an idiom, with a literal meaning closely related to, and historically arising from, the conversational implicature of a request. Motivations for this position arise from two interesting facts: First, *can you* is intuitively more direct as a request than other expressions with similar meanings. Thus 41 is felt to be a fairly direct request, but 42 and 43 are more in the way of hints.

41. Can you pass the salt?
42. Are you able to pass the salt?
43. Is it possible for you to pass the salt?

Second, *can you,* but not its apparently synonymous expressions, has some of the syntactic earmarks of a direct request; for example, preverbal *please,* as in 44 through 46.

44. Can you please pass the salt?
45. *Are you able to please pass the salt?
46. *Is is possible for you to please pass the salt?

PRAGMATICS AND SYNTAX

There is a common (though by no means universal) assumption among generative grammarians that the application of a syntactic rule can be conditioned only by elements or structures that are present at some stage in the derivation of the sentence in which the rule applies. Given this assumption, it follows that something about the (presumably underlying) structure of 44 conditions the application of the rule that places *please* in preverbal position. But one need not accept this assumption. Gordon & Lakoff (11) in fact propose that certain rules are conditioned by the presence of some conversational implicature. Morgan (24, 27) proposes that it is not conversational implicature, but the communicative intentions of the speaker that trigger such rules, so that the rules can be considered to have the function of signaling intentions. At any rate, it is slowly becoming clear that there are various kinds of correlations between pragmatics and syntactic form, ranging from the role pragmatic considerations play in the determination of stress and intonation [Bolinger (4), Schmerling (36), Sag & Liberman (34)] and rule application [Schmerling (35), Green (13), Kuno (20, 21), for example] to less obvious matters like Ross constraints [Morgan (25)].

Schmerling (36), for instance, discusses (among other matters) the fact that the different stress patterns assigned by speakers to 47 and 48, when the content of these sentences was "news," depended on their assumptions about whether the events referred to were expected or not.

47. Trûman díed.

48. Jóhnson dîed.

A variety of pragmatic considerations have been seen to affect rule application. (Put another way, rule application has been seen as reflecting speakers' attitudes, assumptions, and/or intentions.) Kuno (20, 21), for example, discusses the roles that such notions as topicality and empathy have in determining permissible syntactic relations between a pronoun and the noun phrase it refers to. Green's (13) discussion of inverted sentences like 49 suggests that the rules which define such sentences and what kinds of clauses they may occur in must be sensitive to the speaker's intentions in using the particular clause.

49. In came the dog.

But it should not be concluded that pronominalization and inversion are unusual in being sensitive to pragmatic factors; current work by a number of linguists indicates that many supposedly optional syntactic rules are conditioned by such factors.

Though this work is still rather fragmental and not based on a unified and coherent theory of discourse pragmatics, it has already demonstrated that some syntactic phenomena can only be fully understood in the light of pragmatic analysis.

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