

in Gregersen (Ed.) *Papers from the Fourth Scandinavian Conference of Linguistics*, Odense University Press, pp. 145-159.

## A BIRD'S EYE VIEW OF PRAGMATICS

*Jens Allwood*

*Dept of Linguistics, Göteborg University*

The purpose of this paper is to make a few general and to some extent personal remarks about pragmatics intended mainly for those who are not actively engaged in this field. In spite of being abstract and programmatic such a survey has a value in that it provides an opportunity to find out about developments outside one's own area of special interest.

### 1. History and Definition of Pragmatics

Even though the term *pragmatics* is relatively new in a linguistic framework, many aspects of the subject which are now designated by the term are not new to linguistic concerns. In fact much of what was referred to as rhetoric by the Romans and the Greeks seems today to be thought of as pragmatics.

The term *pragmatics* itself was coined in 1938 by Charles Morris (Morris 1938) as a tribute to the philosophy of C.S. Peirce, i.e. *pragmatism* (or *pragmaticism* as Peirce called it later to mark his disapproval of what he thought of as W. James's "bastardization" of his philosophy).

All three terms are derived etymologically from the Greek root *pragma* meaning *action* or *activity*.

In accordance with some hints found already in Peirce, Morris introduced the terms *syntactics*, (henceforth syntax), *semantics* and *pragmatics* to denote the three basic components of a semiotic, i.e. the description and theory of a certain system of signs. Syntax was to be the most abstract study of signs disregarding their denotata and use. Semantics was to be more concrete including both syntax and the study of denotation but not use. Pragmatics finally was to be the fullbodied study of language use including both syntax and semantics. To be historically more accurate, in Morris (1938) semantics was the study of relations between signs and objects and pragmatics the study of relations between signs and interpreters. In Morris (1946), however, semantics is the study of signification in all modes of signifying and pragmatics the study of the origin, use and effects of signs.

Rudolf Carnap (1942) and (1956) made Morris's trichotomy popular in philosophy and is probably more responsible for its present spread in philosophy and linguistics than is Morris.

Carnap added to Morris's trichotomy a distinction between what he called a *pure* and a *descriptive* investigation of a semiotic. A pure investigation proceeds by carefully defining a number of concepts thought to be central to a sign system, e.g. such concepts as reference, truth or syntactic wellformedness can be defined. An artificial sign system is then constructed. Examples of this approach can be found in logical calculate or computer languages. The advantage of this approach is that the investigator can keep everything under control and the disadvantage is that only very few properties of sign systems are understood well enough to be included in such a study, which means that only very impoverished sign systems have been studied so far.

A descriptive investigation on the other hand was to be the empirical study of the actual sign systems that have evolved historically among humans and other animals. It is this type of study which typically is pursued by the linguist when he takes a plunge into linguistic reality and describes as much as he can of what he finds.

A descriptive study is connected with language use rather than with construction of formal languages. Carnap therefore thought of all descriptive studies whether they were of a syntactic, semantic or a pragmatic nature, as pragmatics. For Carnap, thus, there was pure syntax and semantics on the one hand and pragmatics on the other hand including all descriptive studies. In spite of later contributions to the subject his waste-basket-like quality has remained one of the problems with pragmatics.

In Bar-Hillel (1954) and Martin (1959) it was suggested that the distinction between pure and descriptive should also apply to pragmatics and so *pure* or as it is now more often called, *formal*, pragmatics was founded. Carnap and E. Morris later both concurred with this proposal (Schillp 1963 and Morris 1964).

Finally it should again be stressed that a lot of pragmatically relevant work has been done by persons who have not explicitly thought of themselves as doing pragmatics. Let me just mention some examples: In linguistics proper Gardiner, Firth, Pike and Halliday come to mind. In anthropology Malinowski is a key name. In philosophy Wittgenstein II, Austin, Searle and Grice have had even more influence perhaps than that work which is directly related to Peirce. In sociology Cooley, Mead and Schütz are important and are still exercising power through the school of social thought known as Ethnomethodology. In psychology Wundt and Bühler are classical names. A relatively new field of relevance is artificial intelligence where some currently discussed ideas have been put forward by Woods, Winogard, Schank and Norman.

## 2. The Subject Matter of Pragmatics

In view of Carnap's early use of the term *pragmatics* to cover all empirical investigation of sign systems, we can now ask: Is pragmatics just a new name for *linguistics* or for a *theory of communication*?

The answer to this question is I think essentially stipulative. Our pretheoretic intuitions about the matter are very weak and derive, if they exist at all, from the reading of the above mentioned literature.

A more fruitful question to my mind would therefore be to ask whether there is any perspective on or area of interest in linguistic communication which can not be included within more traditional subdisciplines such as phonetics, phonology, morphology, lexicology, syntax and semantics.

I think there is, and will below try to discuss some of the phenomena which in my opinion are included in this area. Before I do this I would like to make a point which although trivial sometimes seems to lead to confusion, namely that although all aspects of linguistic communication are interconnected and to some extent determine each other, the aspects can still be analytically distinguished from each other. So if you believe, as I do, that the syntax of a language both determines and is determined by other aspects of that language such as semantics and phonology, this does not necessarily mean that the study of syntax can not be analytically abstracted from the study of semantics and phonology, even if the aspects in question must be interconnected in any theory of actual language use. In particular it does not mean that one aspect's being interconnected with other aspects should lead one to think of a label for that aspect as a new and empty label designating the area as a whole. What then are the phenomena and new perspectives on linguistic communication that pragmatics has to offer to linguists? What follows below will be an account of some of the things which one fairly generally accords a central position in pragmatics, but will of course also reflect some of my personal prejudices in the area.

Central to the pragmatic perspective is I think the conception of linguistic communication as a species of action and interaction between a sender and a receiver. The sender performs communicative acts of various types. Some of them are verbal and some of them are non-verbal. The receiver reacts to these communicative acts by understanding or failing to understand, by being influenced or not being influenced emotionally or cognitively, by taking stands and forming attitudes towards what he hears and by reacting behaviorally (see Allwood 1976 ch. 7,8 for a more detailed account of the sender's actions and the receiver's reactions). Karin Aijmer's paper in the present volume throws light on some of these problems by discussing how a sender signals his attitudes of certainty with respect to a future event.

Let me now turn to a brief survey of some of the problems inherent in such a pragmatic theory of communication.

I. The analysis of communication as involving action gets pragmatics into difficult conceptual puzzles with regard to such notions as: behavior - action - intention and reason - motive - purpose. For example, what distinguishes communicative behavior, actions, intentions, reasons, motives and purposes from the occurrence of these phenomena, in general? As you might have noticed Austin's concept of illocutionary force (Austin 1962) has not been included in this list of puzzling concepts. The reason for this is that the concept, in my opinion, can be analyzed in terms of the already mentioned concepts. Peter Harder's paper in this volume will illustrate this. See also Allwood (1977).

II. What goes on in communicative interaction, i.e. the actions and reactions of sender and receiver are very much the result of *rational*, *ethical* and many other types of norms. Some of these norms are social conventions. Some are perhaps universal tendencies of human beings based on the interaction between physical environment and biological make-up.

However, whatever the causal explanation of norms may be, there are a number of other puzzles that adhere to such notions as norm, convention and rule. E.g. what is it for an individual to follow a norm, convention or rule? Is it a conscious activity? Can one follow rules subconsciously? Does following a norm mean that you "know" the norm? Can you "know" a norm and not follow it?

Is it correct that such notions as success, felicity, acceptability, truth and grammaticality are all connected with the obedient following of conventions? If they are, one might ask how they differ from one another? E.g. is truth a kind of felicity? Arne Poulsen's paper will deal with some of the wider implications of this type of question.

What is the best way to discover norms, conventions and rules? Hypotheses about norms investigated by statistical sampling are problematic since norms are not necessarily correlated with the regular occurrence of a certain type of behavior. We all know of norms we should follow but for various reasons don't follow. On the other hand regularity of behavior does not necessarily mean that there is a norm governing the behavior, e.g. breathing or patellar reflexes do not seem to be norm-governed.

An alternative to statistical surveys is explicit reflection about intuitions. This can be done either directly in the manner of Grice (1975) and Searle (1969), i.e. by stating some of the norms of communication, or more indirectly in the manner of the ethnomethodologists and, I think, Austin (1962) via intuitions of infelicity, misfires, abuses, unacceptability and ungrammaticality. The underlying assumption for the indirect method is that if you recognize something as wrong you also know what would be right. For example, in order to throw light on the normal speaking distance between Swedes, place yourself two centimeters from a Swedish interlocutor, take his hands and see how he reacts. If you survive, then repeat the experiment with an Arabic interlocutor.

III. If we turn from the norms themselves to their causal background a number of problems appear. Since many of the norms and conventions are determined by the distribution of power and freedom of action among the individuals in a social group it becomes important to have available precise characterizations of such things as power-structure, class-structure and role-structure. An interesting effort in this direction has been made by Pörn (1977) who provides a model-theoretical reconstruction of the notion of social power.

The problem of how norms and conventions are related to communicative activities opens up the larger question of how macro-social structures are related to micro-social events. As far as I can see no existing social theory has solved this problem in a satisfactory manner. However, I think a pragmatic theory of communication could be one of the key steps on the way to a solution of this problem and, at least for me, this possibility certainly provides one of the most important incentives for being interested in this field. The papers by Laursen and Bang & Døør in the present volume illustrate some of the problems such a theory would have to come to grips with.

But norms are not determined by money and power alone. They are also determined by such things as rationality, ethics and esthetics. Some of the norms are conventional and culture-specific. Others are universal and perhaps biologically motivated. Again a lot of conceptual work has to be done if we are going to be able to say something reasonably clear about these phenomena. The concepts just mentioned seem to me, incontrovertibly, to play an important role in communicative interaction, but have no generally accepted and uncontroversial definitions or explications. Conceptual work in this area is therefore important and should not be neglected in favor of seemingly more urgent empirical investigations whose interpretation will, in any case, presuppose such conceptual analysis.

IV. Returning to the micro-social level there is the problem of how to relate pragmatic phenomena to other aspects of linguistic communication. For example, how is the speaker's intended meaning, the conventional meaning of an utterance or the meaning conveyed to a listener related to the communicative intentions of the speaker, e.g. can the intended meaning be said to be identical to the communicative intention?

How are such traditional aspects of meaning such as cognitive content and emotive charge related to the systems of beliefs, attitudes and emotions of both sender and receiver? We need many more investigations of how various attitudes and emotions are signalled linguistically. Both the papers by Aijmer and Hackman in this section deal with this problem.

But also problems of the following kind have to be faced in deciding how pragmatics is to come to terms with semantics: Are truth-conditions a special case of felicity conditions? Can Morris's distinction between semantics and pragmatics really be upheld both in a pure and in a descriptive (in Carnap's sense) study of language

use? Carnap himself thought that although the distinction perhaps could be upheld in a pure study it could not be upheld in a descriptive study, (Schillp 1963). Natural language meaning was for Carnap inextricably connected with use. If one against Carnap's advice wanted to maintain the distinction in a descriptive study, could it then be stated as the distinction between conventional and nonconventional meaning? Or should it perhaps be stated as the distinction between those aspects of meaning that are truth-conditional and those that are not? A supplementary question here which is interesting in its own right is the question of to what extent truthconditional aspects of meaning also are conventional.

But there are also problems outside the realm of meaning and semantics. What is the role of syntax, morphology, phonology and phonetics in a theory of communication as intentional behavior and active reconstructive understanding? How can we best interconnect phenomena traditionally studied in linguistics with the phenomena now denoted by the label pragmatics? The general programmatic attempt which seems to be the most natural one is to regard the rules of syntax, morphology and phonology as instrumental strategies which we have learned in order to realize certain communicative goals.

V. Another problem for a pragmatic theory is the study of linguistic structures over and above the sentence. A basic question here is the following: Is there really any structure above the sentence? If there is, what type of structure is it? Is it of the same type as the structure within a sentence? The paper by Gulliksen in this section deals with some of the problems encountered in using the notion of a speech act as the basis for suprasentential structure. See also Allwood (1976 ch. 15).

A slightly different perspective on suprasentential structures emerges when we move from textlinguistics to the study of types of communicative interaction. With a term borrowed from Wittgenstein (1952 §7) we can call these types "language games" or in order not to exclude non-verbal communication - "communication games". Two questions of particular interest are perhaps: What are the best units of analysis in studying communicative interaction (see Coulthard (1977) and Allwood (1978) for two different answers) and what kind of rules are followed in communicative interactions? As for the latter question many different kinds of rules have already been proposed. Some examples are the following: Sequencing rules (Clarke 1977), turn taking rules (Sachs, Schlegoff and Jefferson 1974), rules matching features of context with features of both the manner and the content of the communicative behavior (Labov 1970). This last type of rule perhaps implicitly takes the sender's perspective more than the receiver's. So in order to adjust for this asymmetry, the feature-matching rule must be formulated both as instructions to a sender and as instructions to a receiver spelling out rules of interpretation and reconstruction.

A question on a more fundamental level with regard to communicative interaction is the question of whether the conception of rules governing behavior really is the best way of capturing the regularities that can be found in communicative interaction. One alternative to the rule-approach is to think of communicative

interaction as governed not so much by rules as by certain goal dependent strategies, where the strategies and goals of the participants can differ from each other according to the backgrounds of the participants. Again, however, some conceptual work must be done in order to clarify the notions of rule and strategy before any serious discussion can take place on how to settle the issue.

The papers by Bunt and Sørensen illustrate some of the problems we are faced with in the analysis of dialogues.

VI. Finally, I want to mention a problem which ever since the days of Firth has been discussed in linguistics. What would a reasonable notion of context be like? Is the distinction between intra- and extra linguistic context of any theoretical importance? What should be included in the extra-linguistic context? It seems natural to include spatio-temporal location but should social factors also be included and if so which ones? Here there seems to be a trade-off relationship between having a rich notion of participant or communicator and having a rich notion of context. The more we let socially significant properties such as age, sex, level of education, regional background, occupation and income be included in the characterization of context the more idiosyncratic the characterization of the individual communicators will have to be.

It seems reasonably clear that a typology of contexts could be constructed on the basis of properties such as those mentioned above. However, we should then ask the following question: Of what use is such a typology? Maybe we need to know more about the ways in which contexts influence communication before it will be worthwhile attempting to construct such a typology. To some extent I think the work which is done in formal pragmatics can here prove to be valuable (see below).

### **3. Some Present Pragmatic Work**

Above I have tried to give some idea of some of the problems encountered in pragmatics. Now I would like to attempt a very quick survey of some work being done presently which is relevant to a few of the problems I have mentioned. The survey is in two main sections according to Carnap's distinction between pure and descriptive work.

#### **A. *Formal or Pure Pragmatics***

##### **(i) *Indexicality and Context***

The interaction between indexical (another common term is deictical) features of language and contextual features is the classic object of study in formal pragmatics. Interesting contributions have been made by Reichenbach (1947), Bar-Hillel (1954), Montague (1968) and (1970), Stalnaker (1970), Lewis (1972) and (1977) and

Cresswell (1974). In general many of the developments in tense-logic, deontic and modal logic are clearly relevant to the problems of indexicality.

(ii) *Presuppositions, Action, Rational Maxims and Games*

Even though indexicality problems constitute the nucleus of formal pragmatics a varied assortment of other problem areas have also begun to be treated. One such area is presuppositions. Some of the interesting work in this field can be found in Hintikka (1962), Van Fraassen (1969), Allwood (1972), Atlas (1975) and Gazdar (1976). Another such area is the analysis of language use as action. Here I would like first to mention some work in the logic of action e.g. Castañeda?? (1975) and Pörn (1977) and work in the logic of imperatives and questions e.g. Rescher (1966), Åqvist (1971) and Hamblin (1973). The study of the role of rational maxims in conversation, inspired by Grice (1975), has been formally developed by Gazdar (1976). Work on the notion of assertion has been done by Stalnaker (1974) and interestingly enough similar work by Dummett (1973) and Löf (1976) is now being used to provide a constructivist semantics for areas of mathematics.

Formal work in pragmatics from a slightly different point of view from model-theoretical semantics, i.e. that of game-theory has been presented in Hintikka (1973) and (1976), Carlsson (1976) and Dahl (1977).

**B. *Descriptive (Empirical) Pragmatics***

Although I am well aware that I have by no means done justice to the field of formal pragmatics above, I will now continue by doing even less justice to the much broader field of descriptive pragmatics.

(i) *Analysis of Action, Intention and Function in Ordinary Language*

There is so much work in this area that the following studies can suffice to give a small taste of the full range: Wittgenstein (1952), Austin (1962), Searle (1969) and Grice (1975). All of these four works are important examples of efforts to clarify certain of the fundamental concepts of the field. More recent work has been provided by Allwood (1976) and Wunderlich (1972).

From a more traditionally linguistic point of view there is work by Firth (1957), Pike (1967) and Halliday (in Kress 1976).

(ii) *Analysis of Communicative Interaction*

Really classical work in this area can be found in Mead (1934) and Malinowski (1930) who were working in sociology and anthropology respectively. More recently ethnomethodologists like Sacks (1972), Jefferson (1972), and Schegloff (1972) have



provided penetrating analyses. But also the work of Hymes (1971) and Labov (1970) should be mentioned. A good summary is provided by Coulthard (1977).

*(iii) Pragmatic Perspectives on the Development of Communication in Children*

Pioneering work of a pragmatic nature on child-communication has been done by Bruner (1976), Halliday (1975). In Bates (1976), Allwood (1976) and Clark & Clark (1977) this work is developed in slightly different directions.

*(iv) Non-Verbal Communication*

Good overviews of this field can be found in Argyle (1975), Morris (1977) and Ruesch et al (1956). More specific work can be found in Hjortsjö (1969), Mehrabian (1971), Hinde (1972) and Birdwhistell (1970). The sign-languages of the deaf could perhaps also be called nonverbal communication, but since this would take us into an area with very special problems I will not mention any work in this field.

*(v) Pragmatic Analyses of Particular Linguistic Problem*

Here perhaps again the work of Pike and Halliday first comes to mind as relatively early and pioneering efforts. But more recently especially in the last three years a very substantial literature from this perspective has grown up. I will just mention two well-known examples Gordon & Lakoff (1975) and Fauconnier (1975).

*(vi) Pragmatics and Written Texts*

For an idea of how pragmatics can be used in literary criticism see Van Dijk (1976). Also within the field of artificial intelligence (AI) pragmatic ideas have been used to analyze texts. E.g. see Schank and Colby (1973).

*(vii) Pragmatics and Psychotherapy*

Awareness of pragmatic phenomena is essential to a psychotherapist. It is therefore gratifying to see conversational interaction scrutinized from this point of view in a growing number of studies. The classics in the field are Bateson (1972), Watzlawick et al (1967) and Satir (1968). More recent work can be found in Grinder and Bandler (1976) and Labov and Fanshel (1977).

*(viii) Ideological Criticism*

Since an analysis of pragmatic phenomena often leads to exposing the social preconditions for specific types of communication, it is only natural that this kind of analysis sometimes leads to political conclusions. Perhaps the best known writer of this kind is Habermas (1970).

#### 4. The Practical Utility of Pragmatics

Finally I would like to make a few remarks about some of the practical applications of pragmatic research.

##### A. *Pedagogy*

Classroom teaching is not always as effective as we would like it to be. One thing that is missing in our efforts to correct this is insight into the nature of communicative interaction in the classroom. What are the typical language-games of the classroom? Why are they there? What are their effects on the systems of emotions, attitudes and beliefs of students and teachers? In Anward (1976) some of these things are investigated and possible remedies hinted at.

##### B. *Language Teaching*

Insight into pragmatics is useful in all teaching but maybe it is especially useful in language teaching where not only the language used as the medium of instruction can be pragmatically analyzed but also the language which is to be learned. There are a number of pragmatic phenomena which doubtless are part of an individual's communicative competence and also vary from culture to culture which so far have not been included in traditional language instruction. Since many of these pragmatic phenomena are of great importance to any individual wishing to communicate effectively in a strange culture, this is a very unsatisfactory state of affairs. Let me just mention two examples.

(i) How can we teach students differences in the ways attitudes and emotions are expressed in different languages? Do satire and irony work the same way in Arabic as in Swedish? To what extent are things such as these communicated non-verbally and to what extent are they communicated verbally?

It should be clear that these things are important and that students would be better off if they could be taught some of them. But the problem is that we are just beginning to have enough knowledge about them, sufficient to say anything sensible at all about them. We need both to do more research into these areas and to work out teaching programs utilizing what we already know.

If we were to do both of these things, we might, for example, begin to say something more precise about the familiar southern European complaint about northern Europeans as being cold and formal.

(ii) Secondly, it seems to be the case that you learn a foreign language more easily when it is being used purposefully, i.e. in communicative acts and language games. As a consequence it seems relatively clear that these notions could be beneficially used as the theoretical backbone of language instruction programs. This

does not mean that instruction in the grammatical and phonological patterns of a language should be abandoned. It only means that they should be seen and taught in relation to the pragmatic purposes they serve.

C. *Psychotherapy*

I have already mentioned the growing literature on pragmatics and psychotherapy and here only want to reiterate my belief that this is a very natural and probably beneficial development.

D. *Political and Social Effects*

The use of pragmatics both in pedagogy and psychotherapy shows that in understanding some of the patterns our various language games force upon us, we simultaneously create the possibility of freeing ourselves from these patterns if we find their effects non-desirable.

It is fairly clear, to me at least, that certain types of both verbal and non-verbal communication have such non-desirable effects in that they reinforce certain patterns of power and dominance distribution.

By understanding these mechanisms we will at least somewhat enhance the chances of creating a society with more access to power, information and responsibility for more members of that society.

## REFERENCES

- Allwood J. (1972) "Negation and the strength of presuppositions", first publ as *Logical Grammar Report 2*, Dept of Linguistics Univ. of Göteborg, subsequently in Dahl Ö (ed.) (1977) *Logic, Pragmatics and Grammar*, Dept of Linguistics, University of Gothenburg.  
(1976) *Linguistic Communication as Action and Cooperation*, Gothenburg Monographs in Linguistics 2, Dept of Linguistics, Univ. of Gothenburg.  
(1977) "A Critical Look at Speech Act Theory" in Dahl Ö (ed) *Logic, Pragmatics and Grammar*, Dept of Linguistics, Univ. of Gothenburg  
(1978) *Some Observations on Communicative Interaction*, (unpublished ms)
- Anward J. (1976) "Språk som pedagogik" in KULING, May, 1976, Dept of Linguistics, Univ. of Uppsala.
- Argyle M- (1975) *Bodily Communication*, Methuen, London
- Atlas J. (1975) *Presupposition: A Semantico-Pragmatic Account*, Pragmatics Microfiche 1.4. (December 1975), D13 - 69.
- Austin J.L. (1962) *How to do Things with Words*, Oxford, Clarendon Press.
- Bar-Hillel Y. (1954) "Indexical Expressions" in *Mind*, 63. 359-76.
- Bates E. (1976) *Language and Context: The Acquisition of Pragmatics*, Academic Press, New York.
- Bateson G. (1972) *Steps to an Ecology of Mind*, Ballantine Books, New York.
- Birdwhistell R. (1970) *Kinesics and Context*, Philadelphia, Univ. of Pennsylvania & Harmondsworth Press, Penguin Books
- Bruner J.S. "From Communication to Language - a Psychological Perspective" in *Cognition* 3, 1976: 255-87
- Carlsson L. (1976) "Language Games and Speech Acts" in Karlsson F.(ed) *Papers from the Third Scandinavian Conference of Linguistics*, Hanasaari, Oct 1-3 1976. Text Linguistics Research Group, Academy of Finland, Turku.
- Carnap R. (1942) *Introduction to Semantics*, Cambridge Mass. MIT Press  
(1956) *Meaning and Necessity*, 2nd Ed. Chicago.

- Castañeda H.N. (1975) *Thinking and Doing*. D.Reidel, Dordrecht.
- Clark H. and Grice (1977) *Psychology and Language* Harcourt. Brace Jovanovich, International edition, New York.
- Clarke D. (1977) "Rules and Sequences in Conversation" in Collett P. (ed) *Social Rules and Social Behavior*, Basil Blackwell, Oxford.
- Coulthard M. (1977) *An Introduction to Discourse Analysis*, Longman, London.
- Cresswell M. (1973) *Logics and Languages*, Methuen, London.
- Dahl, Ö. (1977) "Games and Models" in Dahl Ö. (ed) *Logic, Pragmatics and Grammar*, Dept of Linguistics, Univ. of Gothenburg
- Dummett M. (1973) *Frege: Philosophy of Language*, Harper & Row, New York.
- Fauconnier G. (1975) "Pragmatic Scales and Logical Structure" in *Linguistic Inquiry* vol VI no 3 353-375.
- Firth J.R. (1957) *Papers in Linguistics 1934-1951*, Oxford U. Press, London.
- Gazdar G. (1976) *Formal Pragmatics for Natural Language Implicature, Presupposition and Logical Form*, Unpubl. Ph.D dissertation, Univ. of Reading, Great Britain
- Gordon D. and Lakoff G (1975) "Conversational Postulates" in Cole and Morgan (eds). *Syntax and Semantics: Speech Acts vol III*, Academic Press, New York
- Grice H.P. (1975) "Logic and Conversation" in Cole and Morgan (eds) *Syntax and Semantics vol III*, Academic Press, New York.
- Grinder J and Bandler, R. (1975 and 1976) *The Structure of Magic*, Vols 1 &.2, Science and Behavior Books inc., Palo Alto, California
- Habermas J. (1970) *Einführende Bemerkungen zu einer Theorie der Kommunikativen Kompetenz*, stencil, Frankfurt am Main.
- Halliday M. (1975) *Learning how to mean: Explorations in the Development of Language*, Edward Arnold, London.
- Hamblin C.L. (1973) "Questions in Montague English" in *Foundations of Language* 10 41-53.

- Hintikka J. (1962) *Knowledge and Belief: An Introduction to the Logic of the Two Notions*, Cornell Univ. Press, Ithica and London.
- (1973) *Logic, Language Games and Information Kantian themes in the Philosophy of Logic*, Clarendon Press, Oxford.
- (1976) "Quantifiers in Logic and Quantifiers in Natural Language" In Körner, S. (ed) *Philosophy of Logic*, Blackwell, Oxford
- Hinde R.A. (1972) *Non-Verbal Communication*, Cambridge Univ. Press, Cambridge.
- Hjortsjö, C.H. (1969) *Människans ansikte och det Mimiska språket*, Studentlitteratur, Lund.
- Hymes D. (1971) "Sociolinguistics and the Ethnography of Speaking" in Ardener E. (ed) *Social Anthropology and Linguistics*, Association of social Anthropologists Monograph 10, London, Tavistock, 47-93
- Jefferson C. (1972) "Side Sequences" in D. Sudnow (ed) *Studies in Social Interaction*, The Free Press, New York 294-338.
- Kress G. (ed) (1976) *Halliday: System and Function in Language*, Oxford U. Press, London
- Labov W. (1970) "The Study of Language in its Social Context" in *Studium Generale* 23.
- Labov W. and Fanshel D. (1977) *Therapeutic Discourse*, Academic Press, New York.
- Lewis D. (1970), "General Semantics" in *Synthese* 22
- (1977) *Index Context and Content* unpubl ms Princeton Univ. to be published in Proceedings of the 500 year anniversary symposium on Philosophy and Grammar, Uppsala University, 1977
- Löf P.M. (1976) *Unpublished Lecture notes on the Foundations of Mathematics*, Dept of Math. Univ. of Stockholm, Sweden.
- Malinowski B. (1930) "The Problem of Meaning in Primitive Languages" in Ogden C. & Richards I.A. *The Meaning of Meaning*, Routledge & Kegan Paul, London.

- Martin R. (1959) *Toward a Systematic Pragmatics*, Amsterdam, North Holland.
- Mead G.H. (1934) *Mind, Self and Society*. Univ of Chicago Press.
- Mehrabian A. (1971) *Silent Messages*, Wadsworth, Belmont California.
- Montague R. (1968) "Pragmatics" in Thomason R.H. (ed) (1974) *Formal Philosophy*, Yale U. Press  
 (1970) "Pragmatics and Intentional Logic" in Thomason R.H. (ed) (1974) *Formal Philosophy*, Yale U. Press.
- Morris C. (1938) "Foundations of the Theory of Signs" in Morris (1971) *Writings on the General Theory of Signs*, Mouton. The Hague  
 (1964) *Signification and Significance*, MIT Press. Cambridge, Mass.
- Morris D. (1977) *Manwatching*, Jonathan Cape, London.
- Pike K.L. (1967) *Language in Relation to a Unified Theory of the Structure of Human Behavior*, Mouton, The Hague.
- Pörn I. (1977) *Action Theory and Social Science*, D. Reidel, Dordrecht, Holland and Boston USA
- Reichenbach H. (1947) *Elements of Symbolic Logic*, Macmillan, London & New York
- Rescher N. (1966) *The Logic of Commands*, Routledge, Kegan and Paul, London.
- Ruesch J. and Kees W (1956) *Non-Verbal Communication*, Univ. of California Press, Berkeley.
- Sacks H. (1972) "An initial investigation of the usability of conversational data for doing sociology" in Sudnow D. (ed) *Studies in Social Interaction*, the Free Press, New York.
- Sacks H., Schegloff E.A. Jefferson G. (1974) "A simplest systematics for the organisation of turn-taking for conversation" in *Language* 50/4 696-735
- Satir V. (1968) *Conjoint Family Therapy*, Science and Behavior Books Inc, Palo Alto, California

- Schank R. and Colby K.M (1973) *Computer Models of Thought and Language*, Freeman, San.Francisco
- Schegloff E.A. (1972) *Notes on a Conversational Practice: Formulating Place in* Sudnow, D. (ed) *Studies In Social Interaction*. The Free Press, New York
- Schillp P.A.(ed) (1963) *The Philosophy of Rudolf Carnap*, La Salle Illinois, Open Court.
- Searle J. (1969) *Speech Acts*, Cambridge U. Press, London and New-York.
- Stalnaker R. (1970) "Pragmatics" in *Synthese* 22.  
(1974) "Assertion" forthcoming in the *Syntax and Semantics*, Series, Academic Press
- Van Dijk T. (ed) (1976) *Pragmatics of Language and Literature*, North Holland, Amsterdam
- Van Fraassen B. (1969) "Presuppositions, super-valuations and Free Logic" in Lambert K. (ed) *The Logical Way of Doing Things*, Yale U. Press
- Watzlawick P. (1967) *Pragmatics of Human Communication*, W.W. Norton, , Beavin J.H. and. New York.  
Jackson D.D (eds)
- Wittgenstein L. (1953) *Philosophical Investigations*, Blackwell, Oxford and Macmillan, New York
- Wunderlich D. (1972) *Linguistische Pragmatik*, Athenäum, Frankfurt.
- Aqvist L. (1971) "Revised Foundations for imperative-epistemic and interrogative logic" in *Theoria* 37 33-73