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AN ACTIVITY BASED APPROACH TO PRAGMATICS

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1. Purpose

The purpose of this paper is to outline an approach to communication and pragmatics which under the names of "Activity based Communication Analysis" or "Communicative Activity Analysis" has been under development since the mid 70's (cf. Allwood, 1976). To do this I start by giving a critical review of some of the main theoretical contributions in relation to which the approach has been articulated as a response. I then go on to present some of the main ideas and concepts while giving references to papers in which a more detailed argumentation can be found.

2. Background

The background for the approach is interdisciplinary, covering *philosophy* (e.g. Peirce 1940, Wittgenstein 1953, Austin 1962 and Grice 1975), *linguistics* (e.g. Firth 1957), *anthropology* (e.g. Malinowski 1922), *psychology* (e.g. Bühler 1934, Vygotsky 1978, Rommetveit 1974), and *sociology* (e.g. Mead 1934, Goffman 1974, Garfinkel 1967 and Sacks, Schegloff and Jefferson 1974).

I do not claim that the ideas presented below are necessarily always unique. There have also been other approaches which, even if not always explicitly concerned with pragmatics, show an affinity with the ideas presented below, see, for example, Hymes 1971, Levinson 1979 and Goldkühl 1982. This is reassuring, since it indicates that perhaps something of what is really going on in language and communication is contained in the ideas presented below.

I will, however, not attempt to treat this background in detail. Rather I will place my approach in relation to some of the contributions mentioned above through a combination of a critical discussion and an attempt to briefly indicate what conclusions I want to draw. In the sections following this, I will then slightly expand on these conclusions.

2.1 Wittgenstein

In the philosophical investigations (1953), Ludwig Wittgenstein formulated many deep and provoking ideas concerning our conception of language and thought. Of relevance here are perhaps primarily his ideas about meaning. Wittgenstein claims that meaning is determined by use and that use is determined by language games which together make up a form of life. He, thus, explicitly acknowledges the role of a community and of

interaction for the analysis of meaning and language and his approach is therefore not as individualistic and atomistic as that of, for instance, speech act theory (see section 2.2). The problem, however, is that Wittgenstein's text, although inspiring, is vague and suggestive rather than precise and specific.

Activity based communication analysis is an attempt to build on Wittgenstein's insights by making some of his concepts more precise and specific. The idea that "meaning is determined by use" is retained and analyzed as: meaning is determined by use in three types of context:

- (i) perceptual context,
- (ii) social activity and
- (iii) activated background information.

The idea of a "language game" is analyzed as stereotypical language use in a particular type of social activity (see section 5 and Allwood 1989) and the idea of a "form of life" is analyzed as culture. The introduced three concepts of context: perceptual context, social activity and activated background information, as well as culture, are then given a further analysis.

It is clear that many of the nuances of Wittgenstein's analysis are lost in this analysis and that new elements have been added. But the result is hopefully still interesting and characterized by somewhat more precision and specificity than Wittgenstein's original remarks.

2.2 Speech Act Theory

The second contribution I will consider is Speech Act Theory as formulated in Austin 1962 and Searle 1969. This approach was very important in pointing to the idea that speaking (but by implication also writing and communicating in general) should be regarded as a species of social action. The fruitfulness of the approach is attested to by its influence in other disciplines like sociology (Habermas 1984), AI (Perrault 1980 and Cohen 1986), and linguistics (Leech 1983).

However, speech act theory which in its original formulation, after considering the role of "performatives", becomes based on the idea that a speech act can be seen as constituted by a combination of locutionary, illocutionary and perlocutionary acts or forces has some conceptual difficulties. Among these are the following (cf. also Allwood 1977):

- (i) Speech acts are supposed to be conventional. At least, this is so for the so called locutionary and illocutionary aspects of a speech act. But is this really a generally tenable assumption when it comes to illocutionary acts? A can warn B without carrying out the warning in a conventional manner. What counts is either his intention to get B in a state of alarm with regard to some danger or the successful achievement of this effect. Whether the warning is carried out conventionally or not, seems irrelevant. To the extent that conventions are involved, they are primarily lexical (there is a word "warning" with a certain meaning) and grammatical (there is a declarative mood which I can use to state "I warn you").
- (ii) In fact, it is questionable whether there is any need at all for the concepts "illocutionary and perlocutionary act". They seem to be reducible to the

concepts "intention", "behavior" (with certain form and content), "result" and "context" which are needed anyway for a general of theory of action, of which speech act theory would be a special case. See Grice 1957 and Allwood 1976 and 1978.

- (iii) A third problem concerns the assumption often made in speech act theory that an utterance normally has only one illocutionary force (is only one speech act). As soon as we start examining transcriptions of real dialog, we notice that utterances are both sequentially and simultaneously multifunctional. Just like in the general theory of action, this suggests that "speech acts", like actions in general, should be regarded as intentionally and contextually determined functional aspects of the underlying behavior (which in the case of talk, we can identify with utterances), rather than independent behavioral units.
- (iv) Another problem with speech act theory is its lack of treatment of "contextuality". It does not deal with how the action status of an utterance to a large extent is dependent on its contextual relations. The sentence "no it doesn't" becomes an act of agreement if uttered after a negative statement like "it isn't raining" but an act of disagreement if uttered after a positive statement like "it is raining".
- (v) A fifth problem which is related to the problem of contextuality is the "atomism" or "individualism" of "speech act theory". Speech act analysis primarily concerns acontextual utterances by individual speakers in monologue, rather than contextualized utterances uttered by interacting speakers pursuing a joint activity.
- (vi) A sixth problem which has been backgrounded in speech act theory is cultural relativity. Normally, speech act theory has been concerned with English. However, it is not difficult to show that the correspondence between English speech act terms and the speech act terms in other languages is not one-to-one and that this lack of correspondence is either due to the non-existence of direct correspondents or to very different polysemy patterns and conditions of idealization (e.g., ideas of what an ideal promise is). In spite of this, there has often been a tacit assumption of universality for the analyses presented and cultural and linguistic differences have not been the subject of much study.

The mentioned problems (and some others) have led me (Allwood 1976, 1978) to an alternative analysis of what I take to be the essential insight behind speech act theory - the idea that communication is action. In this alternative analysis, action is seen as constituted by a combination of intention, behavioral form, result and context. In ideal circumstances all four factors are present, but for attribution of speech act labels one of them is often sufficient. The communicative intentionality mainly involved in communicative acts is claimed to be of two kinds: (i) expressive and (ii) evocative, both of which are normally co-present (see also section 7.1). For example, a statement is in a stereotypical case used both to **express** beliefs and to **evoke** beliefs in an interlocutor, where, in this case and many others, the expressive intention is a precondition of the evocative intention, i.e. the fact that speaker A expresses a belief is, normally, by the listener B taken as a reason to believe that A has good grounds for his belief which, in turn, is good grounds for B to share the belief.

A communicative act is successful if it is perceived, understood and evaluated by the listener and it is maximally successful, for the speaker, if all its evocative intentions meet with success, i.e., in the case of a statement that the interlocutor not only perceives, understands and evaluates but also is able and willing to believe the claim made. This, in turn, entails an account of understanding and evaluation which is commented on briefly below (see section 7.3).

2.3 Conversation Analysis

Another contribution to our understanding of the dynamics of language use has been made by "conversation analysis". See, for example, Sacks 1992 and Schegloff 1986. This approach has been very important in underlining the need for real empirical studies (in the case of "conversation analysis", often limited to audio tape) of conversational interaction. The practice in many other approaches of relying only on illustrative, often invented, examples may lead to neglect of complexity and of phenomena not covered by one's theory. Conversational analysis has also been important in pointing to the fact that certain conversational phenomena only arise through interaction and can never be found if attention is limited to individual contributions.

However, also conversational analysis has certain conceptual problems which I will now briefly discuss.

- (i) The concept of "turn" as originally put forth in Sacks, Schegloff and Jefferson 1974 can be said to be a combination of the notions of "utterance", "sentence" and "speech act" with the notions of "right to speak", "holding the floor" and "having an audience". In some cases, these notions coincide, in others they don't, which, for example, leads to difficulties in deciding whether a given contribution is a turn or not. Rather than leaving the interpretation of what a turn is open in this way, it would be preferable to connect speaker contributions analytically with a bundle of features constituted by the above mentioned concepts and admit that all of them do not always coincide (see section 6.1). This suggestion would, however, also have the consequence that turns would be a derived rather than basic concept of conversational organisation which probably means that the suggestion would be rejected by followers of "conversation analysis".
- (ii) Conversation analysis prefers not to explicitly invoke intentional features as explanations. This has among other things led to a positing of "adjacency pairs" (i.e., common sequences of contributions with certain communicative functions) as a social phenomenon. No theory exists over and above the idea that some pairs are preferred over others (i.e. given a particular "first pair part" a particular "second pair part" is preferred). What is needed is, however, a theory which explains the nature of the link between the members of an adjacency pair. This should, in turn, lead to an explanation of why different links might have different strengths and to an attempt to find descriptive data which could shed light on how frequent different links are in different settings.
- (iii) More generally, one might say that "conversation analysts" uphold a kind of ideology of "interpretation free observation" which makes them believe that everything that influences conversation should be visible in the transcriptions and should not require extra background knowledge from the analyst. My impression is, however, that while this ideology has some positive consequences in that it

leads to closer attention to details of what is observable, it also has clear negative consequences in that it leads to implicit rather than explicit use of background information and to interpretation with attribution of intentional features without acknowledging them as such.

- (iv) The emphasis on overtly visible "accountable practices" also leads to an (over) emphasis of the on-line local character of spoken interaction. Such things as the stabilizing influence of social institutions and activity practices have not been sufficiently dealt with.
- (v) Like speech act theory, conversational analysis suffers from a lack of consideration of variation due to culture and activity. The turn taking organisation is supposed to be universal even though empirical investigations show that many of the basic features posited for instance by Sacks, Schegloff and Jefferson 1974, in fact are constant neither from one activity to another, nor from one culture to another.

Again, the difficulties I have mentioned have lead me to suggest a somewhat different approach. Instead of the turn as a basic organizational unit of talk, I am suggesting that the utterance (or more generally the contribution) should have this role and be seen as the carrier of various types of properties, like communicative functions and grammatical units (see section 6). Rather than only indulging in implicit use of background information and interpretation, I think the explicit analysis of implicit information is one of the main tasks of a theory of communicative interaction and should be pursued through a theory of context and an account of how meaningful features of utterances are constituted as context related aspects of those utterances. Such a theory of context should take as its point of departure the multilevel organization of spoken interaction and include an account of both the general, global (and thus predictable and expectable) features and the specific, local (less predictable) features. It should also attempt to explain rather than merely observe such phenomena as adjacency pairs and preference organization (see section 7.3).

2.4 Grice

Another important contribution to our understanding of communication and the pragmatic aspects of language used has been made by Paul Grice (e.g. Grice 1975). In a way reminiscent of Immanuel Kant's analysis of the preconditions of understanding, cf. Kant 1975, Grice presented an analysis of communication in terms of maxims of rational communication. Grice claimed that rational communication is basically governed by a superordinate principle "be cooperative" which is further specified by four maxims, which Grice gave the same names that Kant used for his fourfold division of the categories (quality, relation, quantity and manner). One might surmise that he, through this choice of names, wished to suggest a connection between categories of understanding and categories of communication. Formulating a methodological slogan "Don't confuse the meaning with the use", he proposed that the Wittgensteinian idea of "meaning as use" had led to confusion and should be replaced by a distinction between "literal meaning" and "implicated meaning". He then used the maxims to try to demonstrate how his distinction could be upheld by deriving implicated meaning from literal meaning.

Grice also contributed an analysis of meaning based on intention, i.e., "non-natural meaning" (Grice 1957 and Grice 1969), a notion which he claimed should be basic for linguistic meaning. Grice's work is, thus, an important attempt to integrate the analysis of meaning and language into a more general theory of human rationality and action.

Below, I will first discuss Grice's work on conversational maxims and then briefly turn to his analysis of non-natural meaning.

- (8) Grice's purpose is to analyze conversation as a species of rational behavior. But is it irrational to be uncooperative? It seems that lying or giving misleading information can be very rational, on occasion. Whether being uncooperative is rational or not depends on what you want to achieve, i.e., on your goals, and whether it is acceptable or not depends on your principles of ethics. Grice's analysis of rationality in relation to communication seems, thus, on the one hand to be partly instrumentalistic and, on the other hand to subsume parts of ethics and esthetics (esp. the maxims of manner). A different and I believe more perspicuous analysis would be to assume a fully instrumental concept of rationality in combination with an introduction of ethical principles. In such an analysis, rationality can only be predicated of means in relation to some goal. If goals are said to be rational, that always implies that they are seen as means to some more abstract goal. No ultimate goals are rational. Rather they are arational. Analyzed this way, rationality, therefore, needs to be supplemented by ethical principles which can provide goals which support cooperation, etc. (see section 4).
- (9) A consequence of the unclarity of the notion of rationality in Grice's analysis is that his taxonomy of maxims can be criticized. The maxims seem to overlap. Is one relevant (maxim of relation) if one gives too much or too little information (maxim of quantity)? Is not being brief (maxim of manner) and not giving too much information (maxim of quantity) almost the same thing? Is not giving too little information (maxim of quantity) a form of lying (maxim of quality) etc? It is also clear that the maxims are not exhaustive (this is admitted by Grice himself). One can mislead in more ways than the one's Grice has mentioned. If ethical principles are to be included, why are not other aspects of ethics such as "not hurting other people", "not forcing other people" etc., included?
- (10) Let me now turn to non-natural meaning. In Grice 1957 and in subsequent articles, Grice 1969, it is claimed that what distinguishes "natural meaning" from "non-natural meaning" is that "a non-natural meaning X" has to arise by virtue of some agent A's intention that some agent B should comprehend X by recognizing A's intention to mean X, while in the case of "natural meaning", no such mediation of meaning via intended recognition of some agent's intention is necessary. In so far as Grice's account of "non-natural meaning" also can be seen as an account of communication, the account I want to suggest differs from Grice's in neither making recognition of intention nor intention that such a recognition should take place (and, thus, not what Grice calls "non-natural meaning") a necessary requirement on communication. Natural meaning in Grice's and everybody else's sense can be communicated and comprehended both in the sense of "(causally) explained" and in the sense of "understanding purpose" (see below section 4). Natural meaning can be communicated if it is connected with

appropriate communicative intentions (display or signal, cf. Allwood, 1976) and can subsequently be apprehended, explained or understood by a receiver. As far as I can see, Grice's criterion for non-natural meaning, if extended to communication, will only be met in the case where the sender has an intention that the receiver should recognize meaning M by virtue of recognizing "his intention to communicate meaning M", which in very many cases is not required in normal communication, where it is sufficient that meaning M is simply communicated. The account I want to suggest also differs from Grice's in having a more detailed breakdown of the various features of communicative intentionality. In this paper, this mainly concerns what I have referred to as the "expressive" and "evocative" functions of a communicative act. For further analysis of communicative intentionality cf. Allwood 1976 and 1978. For a deeper and more thorough and also comparative analysis of Grice's work on "non-natural meaning" see Nivre 1992.

2.5 Dialog Grammars

A fifth approach that should be mentioned is that of Dialog Grammars, e.g. Sinclair and Coulthard 1975 and independently, in slightly different form by Moeschler 1989 and Scha and Polanyi 1988. Dialog grammar have been instrumental in bringing pragmatics to the attention of researchers doing classroom analysis Faerch and Kasper 1984 and to parts of the AI community Wachtel 1986. In this approach, rules are formulated which attempt to state sequential dependencies between speech acts such as question - answer.

Some of the problems with this approach have already been alluded to above.

- 3 How do we extend the analysis from question-answer to other such sequences? How common are such sequences?
- 4 How firm is the connection between the members of the sequence? Can a dialog grammar generate or accept sequences such as:

A: what time is it
B: shut up
- 5 Can the rules of a dialog grammar be modified to allow for context dependence and multifunctionality in dialog acts?
- 6 Can a theoretical account be given for why there should exist sequences of speech acts at all? This would entail that over and above rules for the sequences, a theory of communicative interaction motivating the rules should be formulated.

2.6 Clark

The present account also differs from the account given in Clark and Wilkes-Gibbs (1986) and Clark and Schaefer (1989). In these papers, a notion of collaborative speech acts is put forward and it is suggested that the appropriate metaphor for dialog is the musical concert, where the musicians together produce a coherent output. One main difference between the present account and the account in Clark and Schaefer can be brought out by the following examples:

- (7) I warned him but he did not hear me.

(11) I was referring to Bertrand Russell but she did not hear me.

(9) I warned him unintentionally

(10) I referred unintentionally to Bertrand Russell

According to Clark and Wilkes-Gibbs and Clark and Schaefer, neither (7) nor (8) describe possible state of affairs. According to them, it is not possible to perform a communicative act (speech act), without an appropriate reaction taking place in a receiver, in this case, amounting to an appropriate response of recognition of the speech act. If it were possible, this would mean that communicative acts could occur without being collaborative which they claim is not possible. Similarly, although less clearly stated, it seems that neither 9 nor 10 would be possible, since actions should be intentional.

I believe that, in fact, our ordinary pretheoretical somewhat indeterminate concept of action allows for all four cases. In so far as this pretheoretical conception surfaces in the meanings of verbs for communicative acts in the natural languages I am acquainted with, this conception allows for an indeterminacy or underspecificity with regard to the identity criteria which ideally can be associated with an action (cf, Allwood 1978). Briefly, these say that an action ideally is constituted by a relation between a specific type of intention, a specific type of behavior, a specific result and a specific context. However, in ordinary talk about action, it seems that the intention, behavioral form or actual result (and in some cases context) of some instance of behavior can all, taken one by one, depending on circumstances, be used to identify the behavior as a particular type of action.

This means that, at least as far as the conception of action which surfaces in ordinary language is concerned, communicative acts need neither necessarily be resultative nor intentional and the fact that they need not be resultative, in turn, means that they need not be collaborative. An individual communicator can make a contribution (perform a communicative act) without being perceived or understood. He or she can even make a contribution unintentionally. Above all, even when a contribution is intentional and understood, it need not be responded to overtly in order to count as a communicative act leading to communication. Imagine only the following case which involves interactive, collaborative communication without overt response.

- (ii) A: Think of a number
B: (no response but hears, understands and thinks of a number)
A: Double it and then multiply it by three
B: (no response but hears, understands and mentally carries out the operations)

Contributions in the form of "acknowledging feedback", cf. Allwood (1976), are not needed to constitute speech acts but rather to inform the interlocutor of the extent to which his communicative objectives are met and sometimes, like when we listen to the radio or watch TV, we communicate without any feedback at all.

Successful communicative interaction is therefore not due to a (single) communicative act's necessarily being collective and collaborative. Rather it is due to the fact that cooperation and interactive communication to be successful, require that individuals employ individual context dependent communicative acts of sending and receiving (understanding) in such a way that a kind of collaboration results.

2.7 Relevance Theories

Several researchers have proposed that the concept of relevance is important for an understanding of human communication. Perhaps the first suggestion in this direction was made by the social phenomenologist Alfred Schutz (Schutz 1970), who claimed that relevance is a principle according to which an individual organizes his/her cognitive structures into "provinces of meaning". Concerns based on relevance, then, through interpretation and cognition, guide human action and communication. Another suggestion was made by the logician Noel Belnap (Belnap 1969) who proposed a logic of relevance to handle inferences that were relevant but not quite valid. A third suggestion was made by Wilson and Sperber 1984 and Sperber and Wilson 1986, who claimed that the Gricean maxims of rational communication, in fact, could be reduced to one of them - relation - which by Grice is paraphrased as "be relevant". Relevance is then by them analyzed as "maximal information with minimal processing effort". A fourth proposal was made in Allwood 1984 and slightly differently in Allwood 1992.

All four approaches have slightly different objectives. They are for this reason not strictly comparable. However, I will make a few comments in order to place what will be said below (section 7) in perspective.

The phenomenological approach, exemplified by Schutz 1970, connects relevance with phenomenological intentionality, cognition and the meaningful structuring of consciousness. I think this is basically the right way to go and my own approach can be seen as a development of this.

Belnap's suggestion has the difficulty that so far no other system of valid inference than deductive logic (with more or less constructivist restrictions) has been developed. All other systems including Belnap's own seem to be parasitical on (and presuppose) this system. What do we do with the case of a relevant but false conclusion? Do we really want to consider false conclusions relevant? Could the following, for example, be accepted as an inference: "All men want to be beautiful. Socrates is a man. Therefore, Socrates is beautiful". While the conclusion could be claimed to be relevant it does not seem to be an acceptable inference. It could be made acceptable by introducing hidden premises or default assumptions such as: "All men who want to be beautiful are beautiful". But this would not amount to a new inference relation, it is deductive logic with hidden premises.

Sperber and Wilson want to do the same job as Grice using only one of his four maxims. The job, as they see it, might perhaps be paraphrased as the explanation of "relevant interpretation of text or of utterances in dialog". They do this by reducing relevance to "maximal information" with "minimal processing effort" which in turn is interpreted as "restricted maximal logical inference" with "minimal processing effort". The restrictions are necessary since any proposition logically entails an infinite amount of other propositions.

It might now be asked if this is the best explication of relevance. Can there not be maximally informative easily processable interpretations which do not seem relevant? Consider the case of metaphors.

- A: This is not my cup of tea
- B: I don't see any tea cup

For reasons of minimal processing effort, the (literal) interpretation which underlies B's response seems to be the most relevant interpretation in Sperber and Wilson's sense. A metaphorical interpretation would probably require more processing effort and could not so easily be generated as the most relevant one. It is, thus, questionable whether the notion of relevance as defined by Sperber and Wilson is the most intuitive one.

In Allwood 1984 the notion of "relevance" is claimed to be a "relational" concept. This basically means that something is not "relevant" tout court but something x is relevant for something y with regard to some z in some activity A etc. Basic to the notion of "relevance" is, however, that it involves a meaningful connection, mostly, in fact, a means-ends relation. To see something as relevant is to see which purpose it serves. This has an immediate application to communication, since it can be claimed (cf Allwood, 1984) that to understand somebody is to be able to see him/her as a motivated rational agent, which entails being able to see his/her actions (including communicative actions) as relevant to some purpose. To the extent that another person's actions are totally irrelevant, it is not possible to see him/her as a motivated rational agent and therefore also not possible to understand his/her behavior in this way (see further, below, section 7).

In general, a notion of relevance should satisfy the following requirements:

- (i) Relevance should be relational - nothing is absolutely relevant - but relevant for someone/something in relation to something else and it should be clear what relations of relevance are analyzed in the theory.
- (ii) Multiple relevance should be possible. It should, for example, be possible to see how an utterance can be relevant in several ways.
- (iii) Degrees of relevance should be possible. It should be possible to claim that one utterance is more or less relevant than another.
- (iv) The analysis of relevance should be related to a more general theoretical account of communication.

In the following sections of this paper, I will try to give a sketch of an activity based approach to communication and pragmatics which has been developed partly in response to some of the arguments and questions discussed above.

3. An activity based approach to communication and pragmatics

Building on the critical review given above, I therefore turn to a more direct and positive characterization of the activity based approach to communication and pragmatics.

3.1 Multilayered constraints and enablements

The first thing to notice is perhaps the complexity of the relations that are established between the participants in an event of communication. At least the following levels of organisation are involved in any human activity, where each level provides necessary but not sufficient conditions for the next main level and, thus, also necessary but not sufficient enablements (resources) and constraints on human communication whether it occurs in spoken or written form.

(i) **Physical:** The communicators are physical entities and their communicative contributions are physical processes/entities (usually of an optical or acoustical nature).

(ii) **Biological:** The communicators are biological organisms whose communicative contributions from this perspective can be seen as biological activation and directed behavior.

(iii) **Psychological:**

(A) **Perception, understanding and emotion:** The communicators are perceiving, understanding and emotional beings whose communicative contributions are perceptually comprehensible and emotionally charged phenomena.

(B) **Motivation, rationality and agency:** The communicators are motivated (including ethical, cooperative motives), rational agents whose communicative contributions, consequently, are motivated, rational acts (compare Grice (1975), Allwood (1976) and section 4).

(iv) **Social:**

A: **Culture, social institution.** The communicators are, at least provisionally, members of a culture and of one or more social institutions and their communicative contributions can, therefore, be characterized as cultural and social institutional acts.

B: **Language.** They are also members of one or more linguistic communities and their contributions are normally linguistic acts.

C: **Activity.** They, normally, play a role in a social activity and their communicative contributions are contributions to that activity through their role, e.g., as a sales clerk telling a customer about the price of some goods or a teacher lecturing to students (see section 5).

D: **Communication.** They, normally, at a given point in time, focus more on either sending or receiving information, i.e., they are primarily either in the sender, (speaker, writer, etc.) role or in the receiver (listener, reader, etc.) role. In the sending role, they are mostly performing a particular communicative act which makes them the agent of actions such as stating, asking, requesting, etc. This leads to characterizations of their communicative contributions by such labels as sent message, speech, writing, statement, question and request. In the receiving role, they are instead agents of actions such as perceiving, understanding, evaluating and responding which are complementary to the actions performed in the sending role (see section 7).

Since communication, in this way, involves a network of finely interwoven enablements and constraints, the "glue" or "cohesion" at work in an activity and a dialogue must be construed in a similar multilayered way. One of the consequences of this is that communication and the successive contributions to an activity mostly are characterized by such features as redundancy, predictability, recoverability and, given the constraints

on human perception and attention, a certain indeterminacy with regard to the actual current relevance of its various dimensions.

In order, however, to analyze the redundancy in the "glue", the layers have to be described both individually and in relation to each other. It is to this task that I now turn, in trying to describe some aspects of the levels described above. I will start by first describing some consequences of motivation, rationality and agency and then turn to how activity influences communication and end by discussing the nature of basic units and functions of communication and how sequences of these can create dialog cohesion

4. Motivation, rationality, agency, explanation and understanding

One of the levels of organization which is relevant for the study of communication allows us to see communicators as rational agents pursuing various motives and goals, some of which are cooperative and ethical. In fact, communication in many ways seems to build on the human ability for rational coordinated (cooperative) interaction.

Let us now take a look at this ability. As we have seen above, one of the first attempts to give an analysis of this was the one presented in Grice 1975. However, it was also argued that this attempt has some difficulties.

In Allwood 1976 and 1978, I made some suggestions in which I tried to build on Grice's insights while avoiding some of the difficulties mentioned above. The analysis presents six principles of communication seen as a species of rational motivated action and interaction.

- | | | | |
|-----|-------------|------|----------------|
| (A) | Agency | (i) | Intentionality |
| | | (ii) | Volition |
| (B) | Motivation | (i) | General |
| | | (ii) | Pleasure/ pain |
| (C) | Rationality | (i) | Adequacy |
| | | (ii) | Competence |

The two first principles postulate that action is analyzed as behavior involving intention and volition. The next two principles postulate that motivation underlies action and often involves the wish to seek pleasure and escape pain. Other kinds of motivation involve, for instance, cooperation, ethics, power and esthetics. The last two principles say that rationality is analyzed in terms of adequate (efficient) and competent (making sure of preconditions) action. The notions of agency, motivation and rationality are then used to give an analysis of ethics and cooperation as relevant for communication. Ethics is analyzed as involving the "golden rule" or in Kantian terms "universalizability" with regard to agency, motivation and rationality. "Doing unto others what you would have them do unto you" is claimed to entail "making it possible for others to be rational, motivated agents". If you consider other persons in this way, you take them into "ethical consideration". Communicative interaction is claimed to always involve some degree of cooperation which is defined as follows: Two agents cooperate to the extent that they

- (i) take each other into cognitive consideration
- (ii) have a joint purpose

- (iii) take each other into ethical consideration
- (iv) trust each other with regard to (i) - (iii)

Communication involves at least cognitive consideration, i.e., an attempt to perceive and understand another person's actions (where these can be both non-communicative and communicative in nature). If communication is intentional, it is further claimed to involve at least one joint purpose, i.e., the purpose of sharing information, or perhaps better, sharing understanding which incidentally also is what the etymology of communication (communicare: to make common or shared) indicates.

Communication is always cooperative in the first sense and mostly also in the second sense, even if it involves conflict. You cannot deal your opponent a blow, and stay safe, unless you cognitively consider him/her and for many kinds of conflictual action, you also want your opponent to understand what you are doing or saying which also requires at least cognitive consideration of his possibilities of doing so.

Communication is, however, very often cooperative in much more than the minimal sense just described. Usually, it involves ethical consideration, we don't lie to other people (more than marginally), we don't usually hurt them, we don't usually impose on them (in fact, politeness norms, which are widely adhered to, often have the purpose of preventing pain and imposition). It also involves trust. Normally, we don't think others are lying, trying to hurt us or impose on us.

We have already noted above that an important part of being able to understand another person is to be able to interpret the purpose or the motives behind his communicative and non-communicative actions. If we cannot find any such purpose or motive, we cannot "understand" him/her as a rational motivated agent but have instead to try to comprehend his/her actions in another way, for example, by "explaining" them causally. In fact, conceptually speaking, both "understanding"(in the narrow sense used here) and "explaining" can be seen as special cases of "comprehending" or "understanding in a wider sense" which can be defined as "establishing a meaningful connection between input information and stored background information". It could also be claimed that "understanding in a narrow sense", i.e., understanding of intentions and motives, can be seen as a special case of "explaining", in view of the causal role of motives and intentions.

In everyday life and conversation, we constantly switch between an "understanding"(in the narrow sense) and an "explanatory" mode of comprehension. If another person coughs, this can be because he/she wants us to notice something fishy (purpose) or because something obstructed his/her breathing (cause). Likewise, if the normally shy A says "I love you" to B, after he/she has had a few drinks, our comprehension of A's utterance would combine understanding (he/she was motivated by love) with explanation (the drinks had caused him/her to be less bound by social restrictions).

Thus, in the analysis suggested here, rationality, motivation and agency are essential ingredients of both the production and understanding of human communication, but they are not the only ingredients. Other aspects of the physical, biological, psychological and social resources and constraints are also necessary and are drawn upon continuously to supplement interpretation and comprehension when "understanding" in terms of rational motivated action is insufficient. Perhaps, we as communicators usually want to be "understood" rather than merely "explained" and therefore primarily try to understand

others by trying to see them as relevant (motivated rational agents). However, we often combine this with comprehending them by "explanation".

Philosophically speaking, this means that, in relation to the views put forth, for example, in Dilthey 1883 and von Wright 1971, I do not believe that "explanation" and "understanding" should be pursued separately in something like "Geisteswissenschaften" and "Naturwissenschaften" but rather that they should be regarded as possibly analytically distinguishable modes of comprehension, for which it is a challenge to find new forms of integration.

5. The Role of Activity

One of Wittgenstein's basic claims was that the meaning of linguistic expressions should be analyzed as their use in different language games.

In activity-based communication analysis (or communicative activity analysis), this claim is further analyzed in the following way:

The choice and meaning of linguistic expressions is seen as a product of the interaction between an inherent "meaning potential" of the expression and the use it is put to in linguistic constructions, communicative functions and joint social activities. The use is, thus, defined in terms of (i) collocations in different types of grammatical structure, (ii) participation in different types of communicative functions (see section 7.3) and (iii) occurrence in a specific type of social activity.

Let us now briefly consider the notion of a social activity. A social activity can be characterized by the following parameters (cf. Allwood 1980 and 1984):

1. Type, purpose, function: procedures
2. Roles: competence/obligations/rights
3. Instruments: machines/media
4. Other physical environment

The type, purpose or function of an activity gives it its rationale, i.e., the reason for its existence. So by finding out the purpose, we get at least a vague idea about what means could be used to pursue the activity. I have used two words "purpose" and "function" to indicate that an activity might be pursued for many reasons, some of which are less commonly acknowledged - these latter one might then call functions. The purpose and function have often given rise to procedures which help define what the activity is all about. An activity is also reinforced by the fact that there is a term for it. When we understand terms like "discussion", "negotiation", "lecture" etc., what we understand is mostly precisely the function or purpose of a specific type of activity

One of the means whereby an activity gets pursued, again and again, is by being associated with certain standard activity roles, i.e., standard tasks in the activity which usually are performed by one person. The role can, on the grounds of this association, be analyzed into competence requirements, obligations and rights, where the competence requirement can be seen as a precondition of the obligations. As an example, consider lecturing as an activity. The purpose is something like oral transfer of information in a coherent fashion to a larger number of people. Stereotypically, the activity gives rise to two roles that of the lecturer and that of a member of the audience. The lecturer is obliged to talk coherently on an agreed topic (in which he/she is supposed to be

competent) and the audience should listen, at least they should seem like they are listening and perhaps critically evaluate and ask questions.

Instruments and machines also play an important role for many activities and will, if they are used, create their own patterns of communication. For some they are necessary. For others they are more ancillary. Consider, for example, the influence of blackboard, chalk and overhead projectors on lecturing.

Other physical circumstances can also be relevant like level of sound or lighting. If the acoustics are bad, the lecturer will have to raise his voice; if the light is too bright, no overhead-projector can be used, etc.

For most human activities, communication plays an important instrumental role. The nature of this role can vary from being necessary, like in a lecture or a negotiation, to being helpful but perhaps not always necessary. At least, the need for communication might diminish after the basic pattern of the activity has been established, like in garden work or fishing. An activity can, however, be predominantly communicative, like talking in order to relax, even if talking strictly speaking is not necessary for relaxing. In the same way, communication is sometimes necessary like in housing construction, even if housing construction cannot be said to be a predominantly communicative activity.

For both activities and communication, a certain degree of cooperation is essential. In Allwood 1976, it was suggested that cooperation can be analyzed by four conditions (see above section 4), each of which is sufficient to speak of some degree of cooperation, but which together make up what could be called ideal cooperation.

Communication in itself always involves some degree of cooperation but the degree of cooperation is strengthened by participation in a joint activity. Consider again lecturing. If lecturing is to be successful, the lecturer and the audience must cognitively consider each other, they must also actively work toward the purpose of the activity, which will imply structuring and meaningful content, on the part of the lecturer, and active listening, critical evaluation and maybe note-taking, on the part of the audience. Ethical consideration also plays a role, the lecturer should not waste the time of the audience, not insult them, not make slanderous remarks about other persons, etc., and the audience should not disturb the lecture but generally show courteous behavior. Trust can also play a role, the lecturer trusts the audience to pay attention and the audience trusts the lecturer to be well prepared and to give them correct information, on a level which they are capable of handling.

It is obvious from the analysis just given that the ethical and functional aspects of an activity can strengthen each other. To do what is ethically right in relation to lecturing (or any given activity) is mostly also to do what is functionally desirable or, at least, not dysfunctional.

The strength of the obligations which are generated on ethical, functional and perhaps other grounds, will vary according to circumstances. For example, if there are no text books, or if the lectures cover material not occurring in the text books, but occurring in tests, the functional necessity for note taking increases.

The requirements on the activity rules, thus, include requirements on communication. The different communication roles can be connected with specific ethically and

functionally motivated obligations and tasks. For example, in teaching, we expect the teacher to be sincere, to motivate his claims by giving evidence and to take the previous knowledge and general state of fatigue of his/her audience into account. We also expect the teacher to check whether his students have understood and learned, which is one of the things that might distinguish a teacher from a lecturer. Another perhaps weaker expectation is that a teacher should encourage students to ask questions to further their knowledge and to check their understanding. This means that some of the communicative acts which are typical of a teacher are "stating" to describe and explain, "asking questions" to check and control and "making requests" to instruct and control. If we turn instead to the students; they are supposed to listen, try to understand and to some extent evaluate, learn and integrate with previous knowledge. This means that students typically will "be quiet", "listen" and "try to understand and learn". When they are in the sender role, they will "give feedback" to indicate perception and understanding. They will "answer questions" and on a rare occasion "ask the teacher a question" or "make an objection".

6. Basic Units of Communication

Let us now take a look at the process of communication itself and the basic units which occur in it.

The basic individual communicative unit in interaction, I will call a "contribution". A "contribution" can be defined as an instance of communicative behavior bounded by lack of activity or another communicator's activity. If the speaker's activity should cease during a contribution (e.g. by pausing while speaking), the pause must not be filled by another communicator's contribution, nor must it be so long that it is more reasonable to regard renewed activation as a new contribution. The unit in spoken language corresponding to a contribution is an utterance. Each contribution can be characterized with regard to both expressive and content related features, cf. Hjelmslev 1943.

A. Expression features: A contribution can, for example, be expressed by gestures or oral linguistic means. The latter can be subdivided into such units as acoustic, articulatory and perceptual features, phonemes, syllables, morphemes, words and phrases such as NP, VP, PP and S. A contribution can contain several units of different types, for example, several grammatical units. Cf. example (3) where, for ease of reference, the grammatical units are marked with punctuation marks and capitals.

(3) A: Yes! Come tomorrow. Go to the church! Bill will be there, ok?
 B: The church, ok

Example (3) shows that utterances are not coterminous with sentences. A's utterance contains 2 feedback morphemes and 3 sentences, and B's utterance contains an NP and a feedback morpheme but no sentence.

B. Content features: From a content point of view, a contribution can also be classified in several different ways. Some examples are the following: (i) Degree of explicitness; is the content explicitly asserted or is it implied in some way? (ii) Types of entities and combinations of entities expressed through various grammatical devices for reference, predication and attribution, e.g. object, substance, property, relation, process, state, event and course of events, (iii)

Types of emotions or attitudes expressed through intonation and gestures but also through choice of vocabulary and type of grammatical construction, (iv) Types of communicative function. In general I will be assuming the following three types of functions:

1. Own communication management (OCM) - to enable a communicator to choose and change his/her message (cf. Allwood, Nivre and Ahlsén, 1990).
2. Interactive communication management (ICM) - to enable communicators to manage the interaction, for example, with regard to sequences, feedback and turn management,(see section 7.4).
3. Other communicative functions, such as those which constitute communicative acts like stating, requesting or questioning

A contribution can be mono - or multifunctional. If it is multifunctional, its multifunctionality can be simultaneous or sequential. A's utterance in example (3) above, for example, contains sequentially the functions feedback giving (cf. Allwood, Nivre, Ahlsén, 1992), request, request, statement and response elicitation. Furthermore, the statement 'Bill will be there' could simultaneously be a promise and, thus, illustrates simultaneous multifunctionality. Functional features such as request, statement, promise, could also be called "communicative acts". This concept, in turn, has a historical connection to concepts like "illocutionary force" Austin (1962) and "speech act", cf Searle (1969), and was proposed in Allwood (1976) and Allwood (1978) in order to amend some of the problems with these notions, mentioned above. A communicative act can be defined as a contribution or feature/part of a contribution which can be connected with a communicative intention (purpose, goal or function) or a communicative result. The reason for the disjunction in the definition is that communicative acts, like actions in general, seem to be identifiable by either behavioral form, intention or result, cf. also above sections 2.2. and 2.6.

In summary, thus, the contribution (utterance) is proposed as the basic unit of communicative interaction, in which it serves as an anchoring point for other kinds of organization, such as feedback, the right to communicate (turn management), grammatical structuring, and functional intentional structuring (communicative acts).

6.2 Sequences of contributions

Contributions are not made in random order, but are in various ways dependent on each other. As we have already noted, this has led to proposals such as those of adjacency pairs and dialog grammars. In the framework proposed here, the order of contributions is ultimately dependent on all the types of resources and enablements mentioned above, in section 3. Below, I will now discuss some of these, namely those that are connected with the assumptions of (i) motivation, rationality and ethics, (ii) the mutual dependence of communication and social activity and (iii) various functions of communication. The point of departure for the investigation will be the functional features.

7. Sequences of contributions and dialogue cohesion

7.1 Expressive and evocative dimensions of communication

Let us now take a closer look at communicative functions and at how a more fine grained analysis of these functions can be used to give an account of cohesion, cf also Allwood (1976) and (1978). Each communicative act, e.g. statement, question, request, exclamation, can be said, on the one hand, to count as an "expression" of an attitude (with a content) on the part of the speaker and, on the other hand, to count as an attempt to "evoke" a reaction from the listener. Table 1 summarizes this analysis for the four mentioned communicative acts. In statements and exclamations, the expressive dimension is more in focus, while in questions and requests it is the evocative dimension which is in focus.

Table 1 Components of dialogue cohesion. Analysis of the expressive and evocative dimensions of four communicative acts

Type of communicative act	Expressive	Evocative
Statement	belief	(that listener shares) belief judgement
Question	desire for information	(that listener provides) the desired information
Request	desire for X	(that listener provides) X
Exclamation	any attitude	(that listener attends to attitude)

To illustrate the role of the claims made in the table concerning cohesion, consider a speaker A making a statement like "It's raining" to a speaker B. According to the table, A, thus, expresses his belief that it is raining and wants, or at least has nothing against, the same belief being evoked in B. If he/she asks a question like "Is it raining?", he/she expresses a desire for information and wishes to evoke the desired information from his/her interlocutor.

7.2 Obligations in communication

The expressive and evocative features of a contribution are connected with obligations. A person who through his/her contribution is expressing or evoking something is normally obligated in the following ways (cf. Allwood 1994), which we can call "communicative sender obligations":

- (i) sincerity; He/she should have the attitude that is being expressed For instance, a statement of P implies belief in P etc.
- (ii) grounding; He/she should have the motivation and competence required for the communicative act. For example, making a claim requires some form of evidence for the claim.
- (iii) consideration; He/she should consider whether the interlocutor can and wants to comply with the main evocative intentions of the utterance. For example, in making a claim he/she should consider whether the listener has enough background information or might be in possession of counter evidence to the claim.

But also a receiver is obligated to certain actions by communication. After each utterance he/she must evaluate whether and how he/she can and/or wants to continue, perceive, understand and in other ways attitudinally react to the previous utterance(s) in question.

Besides being a necessary requirement for communication, this can also be normatively reconstrued as a number of communicative obligations based on a basic human social tendency to be contactable for coordination of information, which, in turn, is perhaps the most important precondition for social cohesion. What I have above referred to as "ethical consideration" is important here. To ignore another human being's wish to share information would make it impossible for him/her to be a rational motivated agent, in this respect. Ethical considerations reinforce the tendency to be contactable. Secondly, to accept the information without critical evaluation, which takes into consideration, your own ability, knowledge and desires would be to neglect both your own rationality, motivation or agency and the needs of the other party. A third obligation, somewhat weaker than that already mentioned, is, then, the obligation to report on the result of the evaluation. We could call the two first obligations, contactability and evaluation, "the obligations of consideration" (the receiver's consideration of the sender) and the third obligation "the obligation of responsiveness".

Given the obligations of consideration and responsiveness, B must now evaluate whether and how he can (and/or wishes to) continue, perceive, understand and react to the main evocative intention of the previous utterance. Let us assume that he can (and wishes to) continue, perceive and understand. Some possible reactions are given in example (4).

- (4) A: It's raining
B1: Yes (it is)
B2: Are you sure
B3: No (it isn't)

In B1, B accepts the evocative intention. In B2, he questions A's grounds for the expressed belief and, thus, also the grounds for the reasonableness of accepting it as his own. In B3, he denies the validity of the expressed belief and by implication, he also rejects the force of the evocative intention and his own ability (or wish) to accept the belief.

Also B's various replies in example (5) below, honor the receiver's obligations, even though they are clear transgressions against other obligations.

- (5) A: How are you?
B1: Shut up, I don't want to listen to you
B2: I don't have time
B3: I don't understand
B4: None of your business

Normally, in dialogue, contactability, evaluation and responsiveness are combined with other obligations (e.g. ethical, esthetical or power based) which would tend to prohibit B1-B4. Further examples of such obligations are given in the maxims formulated in Grice (1975) or Allwood (1976).

In fact, the receiver's obligations can themselves, as we have seen, be considered as a special case of the application of these maxims. The receiver's obligations are frequently combined also with the obligations and conventions which are connected with a particular activity or a particular role in an activity. A pupil in a school class is under a different pressure to answer the teacher's questions in the classroom than he is to

answer his friends' questions during the break. The pupil role, thus, reinforces his "responsiveness obligation" in relation to the teacher.

7.3 Evaluation and report

All three utterances B1-B3, in (4), respect the obligation of communicative responsiveness. Explicitly they report on an evaluation of the main evocative function in A's utterance and implicitly they positively report on the functions of contact, perception and understanding.

Thus, an evaluation of all these four basic feedback functions of communication can be reported on positively or negatively, explicitly or implicitly. Table 2 gives us a survey of the possibilities seen as possible replies from a speaker B to a speaker A who has uttered "It's raining". "No reply", "any reply" and "irrelevant reply" are meant as descriptions of types of replies rather than as instances of replies.

Table 2 Positive, negative, implicit, explicit reports on evaluation of a preceding utterance "It's raining"

Basic communicative functions	Positive		Negative	
	explicit	implicit	explicit	implicit
contact	"I will continue"	any reply which pays attention to interlocutor	"I have to go"	no reply walk away
perception	"I can hear you"	any reply which betrays that the interlocutor's contribution has been perceived	"What", "pardon", "sorry", "I can't hear you".	irrelevant reply
understanding	"I understand"	any reply which betrays that the interlocutor's contribution has been understood	"What", "pardon", "sorry", "I don't understand"	irrelevant reply
reaction to main evocative intention	"Yes it is"	"But yesterday it was sunny"	"No it isn't"	"The sound on the window pane is the water from the neighbor's garden hose"

The implicit way of reporting positively on contact, perception and understanding is to let what one says presuppose (imply) that one is continuing and has perceived and understood. Normally any relevant reply, whether it is positive or negative, would have this presupposition. Thus, both the positive replies "yes it is" and the negative "no it isn't, it's sunny" normally imply that the speaker is continuing and has heard and understood the previous utterance. The difference between the explicit "yes it is" and the implicit "but yesterday it was sunny" is that "yes it is" explicitly accepts the previous utterance as true while "but yesterday it was sunny" merely implies this. In general, the information that is implied is diminished by making any of the four basic feedback functions explicit. We, in fact, get a default chain of implications of the following sort, reaction to evocative intention - > understanding - > perception - > contact. So, if B says "I hear you" this implies contact but not necessarily understanding or any further attitudinal reaction. It is also important to note that the implications are

default implications since it might be possible, in some cases, to hear without continuing, or to understand without hearing properly, or to accept (as an example of an attitudinal reaction) without understanding. Even the implication of contact might be cancelled if we imagine a case where B by chance utters something to A which by C (to whom the utterance is not directed) is experienced as a relevant reply.

Let us now consider replies to the statement "it's raining" which combine different types of reports. Below in examples B5-B8, the text in brackets indicates the status of the reply with regard to explicitness (explicit and implicit), polarity (positive and negative) and basic feedback function (contact, perception, understanding and acceptance (an example of a reaction to the evocative function)).

- B4: I can hear you and I now understand that you are telling me about the weather (expl: pos: perc + expl: pos: underst.).
- B5: I understand you want your raincoat (expl: pos: underst. + impl: pos: underst.).
- B6: I understand what you say but you are wrong it isn't (expl: pos: underst. + expl: neg: accept.)
- B7: I understand but the sound on the window pane is the water from the neighbor's garden hose (expl: pos: underst. + impl: neg: accept).

Examples B4-B7 show how implicit, explicit, positive and negative features can be combined with regard to the different basic communicative functions.

7.4 Interactive communication management

Evaluation and report form an important part of the mechanisms behind interactive communication management, with at least the following subfunctions: (i) sequencing, (ii) turn management, and (iii) feedback, cf. Allwood, Nivre and Ahlsén (1992).

1. Sequencing: Sequencing concerns the mechanisms, whereby a dialog is structured into sequences, subactivities, topics, etc. Sequencing to a large extent is an effect of limitations on simultaneous information processing in human beings and the means - ends character of many human activities. Everything cannot be done at the same time and some things form preconditions for others. We, therefore have a need for devices to show when one subactivity or topic ends and another one begins.

2. Turn management: Turn management concerns mechanisms which communicators use for the distribution of the right to occupy the sender role in communication (having the turn). Since turns are defined as a right to communicate it is a normative rather than a behavioral unit but turns are often but not always, coterminous with utterances.

Consider the following examples:

- | | | | | | |
|-----|----|-----------------|-----|----|----------------|
| (1) | A: | [It's raining?] | (2) | A: | Don't go there |
| | B: | [m] | | B: | (Silence) |

In (6) B utters "m" during A's turn ([] indicates overlap) and in (7) B has a turn but chooses to fill it with non-activity (silence). Example 1, thus, shows that an utterance does not have to be a turn and example 7 shows that a turn does not need to be an utterance.

3. Feedback: Feedback concerns means which communicators continuously use to elicit and give information to each other, throughout a dialog, about the four basic communicative functions (contact, perception, understanding and reactions to the main evocative intention of the preceding utterance) described above. The feedback system provides a kind of mini-version of the report system described above. With morphemes like yes, no, ok and oh, or mechanisms like repetition and pronominal reformulation, all of which are subject to prosodic modification, a speaker unobtrusively can combine information about the basic communicative functions with other information. For more details, cf. Allwood, Nivre and Ahlsén (1992). In fact, feedback morphemes and mechanisms, whether they occur as single utterances or as part of a larger utterance (often in initial position) are probably the most important cohesion device in spoken language.

8. Dimensions of relevance

Let me now finally return to the topic of section 2.7 above - relevance. At the end of the section it was suggested that any relevance theory should meet four criteria: (i) retain the relational nature of relevance, (ii) admit of multiple relevance, (ii) admit of degrees of relevance and (iv) derive relevance from a superordinate theory of communication.

I would now like to show that the approach to relevance advocated in Allwood 1984 and 1992 meets these criteria. In this approach, relevance is basically analyzed as "meaningful relation" and it is further claimed that the most important such relation is the "means-ends" relation. Since the starting point of the analysis is that relevance is relational, it meets criterion (i), i.e., that of retaining the relational nature of relevance. It also meets criterion (ii) since an aspect of the analysis is to point out that we often pursue several goals at the same time, and that our actions therefore can be means to several ends, i.e., multiply relevant. Since some means are better than others for achieving a particular end, the proposed analysis also admits of degrees of relevance - criterion (iii). Finally, the account of relevance is a consequence of the analysis of communication as rational motivated action and interaction, which means that to produce a relevant utterance or a relevant interpretation is simply to act as a rational motivated communicator where producing a relevant interpretation is often guided by an attempt to interpret another agent's communicative behavior as rational motivated action. If this is possible, we understand another person, if it is not possible, we must still produce a relevant interpretation by explanation.

Even though participants in a dialogue can be presumed to attempt to achieve relevance both in their own contributions and in interpreting the contributions of others, contributions can, all the same, be more or less relevant. Let us therefore take a look at some of the considerations which can lie behind attributions of degrees of relevance. Intuitively what is at stake with regard to degrees of relevance, is "importance for the purpose of communication".

- (i) **Primary relevance.** Here we find explicit or implicit reports of positive or negative evaluations of the most salient evocative intention(s) of the preceding contribution(s), as well as attempts, in the relevant cases, to carry out the tasks implied by the evocative intention.

- (ii) **Secondary relevance.** Secondarily relevant contributions concern lack of contact, perception and understanding. Such contributions are always relevant and have precedence over others, since they concern preconditions for being able to evaluate the main evocative purpose of the preceding communicative contribution. In a sense, what we have here is an analog of the rule in formal meetings that "points of order" always have precedence. These contributions have precedence, but since they concern preconditions of communication rather than its main function, I have considered them secondarily relevant.
- (iii) **Tertiary relevance.** Tertiary relevance could perhaps be accorded to positive or negative contributions concerning overall purposes of the activity of which the dialogue is a part. Cf. C's contribution in example (6) below.

- (6) A1: Coward
 B: Liar
 C: Please remember the purpose of this meeting.
 A2: Not only is he a coward, now he spilled coffee on me

Also contributions concerning various preconditions of a preceding contribution belong here. B's contribution in example (6) is an example of this. Both "coward" and "liar" are statements, even though in elliptical form, and thus presuppose sincerity and grounding on the part of the speakers. B's contribution, therefore, becomes relevant as a statement to the effect that this presupposed condition is not met by A, i.e. A does not really believe that B is a coward.

- (i) **Quaternary relevance;** Possibly a fourth degree of relevance could be accorded to contributions concerning other contextually available aspects. For example, such aspects as are available through perception in the speech situation or through cognitive activation caused by preceding discourse. A's second contribution in example 6 above exemplifies both of these features.

In principle, I believe that these four types of relevance capture important aspects of what it means to be more or less relevant to the ongoing purpose of dialogue communication. By implication I would also claim that this analysis captures another aspect of what it means for a dialog to be (more or less) cohesive.

9. Conclusion

It has been my purpose, in this paper, to give an account of some of the features of an activity based approach to communication and pragmatics. My account has focussed on what I above have called the psychological and social levels, i.e., properties of communication which can be related to the fact that communicators are perceiving, understanding and emotional beings who also can be seen as rational motivated agents occupying various activity roles. I have further tried to claim that mutual communicative attunement to some extent is enabled and constrained by maxims of rational, motivated action and what I have called the "obligation of responsiveness".

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